ONE OF BRITAIN'S GIANT WATCH-DOGS THAT KEEP THE CONVOYS SAFE

In the convoying of merchant ships, the Coastal Command of the Royal Air Force co-operates with the Navy to splendid effect. The 'planes employed are chiefly the Short "Sunderland" four-engined flying-boats, 112 ft. 10 in. wing span, one of which is here seen being drawn, stern first, up a slipway to undergo its periodic overhaul. Note the guns protruding from the boat's tail. *Photo, Fox*

Finland Shows What Free Men Can Do

"The service rendered by Finland to mankind is magnificent," said Mr. Winston Churchill in his broadcast on January 20. "Superb, nay sublime, in the jaws of peril, she shows what free men can do." He went on to refer to the "base and abominable" methods employed against her—those methods described below.

On the sixteenth anniversary of Lenin's death the Moscow newspaper "Pravda" stated that "the great Soviet people, true to Lenin's teachings, has extended a fraternal helping hand to the Finnish people in its struggle against the Mannerheim and Tanner [Finland's veteran Marshal and late Premier] band of executioners. The regiments of the Red Army have covered their banners with unfailing glory in the struggle against the world's worst enemies of the working people."

When these brave words were being set in type, the "fraternal helping hand" was dropping bombs as fast as they could be released on the towns and villages of Finland. In the course of Saturday, January 20, some 500 Soviet 'planes dropped approximately 3,000 bombs, and though only three people were reported to have been killed and twenty-five wounded, they started many fires and caused great damage to property. Turku (Aabo), in particular, suffered heavy damage in the course of its thirtieth air raid since the war broke out. Eleven Soviet warplanes flew over the city and dropped their bombs from a height of 16,000 feet. Among the places hit was a maternity home, but the inmates, including two mothers each with a two-day-old baby in her arms, reached safety in the air-raid shelter. Many houses were set on fire by the incendiary bombs, bringing the total of the city's buildings rendered uninhabitable by Russian bombs to over 800. The harbour, too, was practically destroyed by bombs, and in the middle of the anchorage the ruins of a large steamer projected above the water—high enough to reveal the huge red cross which marked her as a hospital ship.

Hango was treated by the Soviet bombers in the same ferocious fashion. Of its pre-war population of 8,000 only 1,500 now remained, and these spent all day in the air-raid shelters, where the thermometer showed at times 70 degrees of frost. Helsinki and many other towns and villages far behind the fighting line were subjected to raid after raid. One of the worst features of this Red terror was the machine-gunning from the air of the firemen who attempted to put out the fires started by the incendiary bombs.

A strikingly vivid picture of this onslaught on the civilian population was given by Miss Virginia Cowles, Special Correspondent of the "Sunday Times," on January 21, immediately on her return to Helsinki from a visit to Hango. "It is difficult to convey a picture of what war against the civilian population is like in a country with a temperature thirty degrees Fahrenheit below zero," she wrote. "But if you can visualize farm girls stumbling through snow for the uncertain safety of their cellars; if you can see bombs falling on frozen villages unprotected by a single anti-aircraft gun; men standing helplessly in front of blazing buildings with no apparatus with which to fight the fires, and others desperately trying to salvage their belongings from burning wreckage—if you can picture these things and realize that even the children in remote hamlets wear hastily-made white covers over their coats as camouflage against low-flying Russian machine-gunners, you can get some idea of what this war is like."

Arrived in Hango, Miss Cowles found that twenty buildings had been hit and ten were still burning. Great billows of smoke were rising in the air. The roads were littered with mattresses, chairs, and household articles which the soldiers had salvaged, and the charred frames of the houses stood out against the snow.

While this merciless air-bombing was in progress, fighting was continuous in the Salla sector. Here, where there was no real line, no system of connected trenches even, the rival armies fought in little groups from behind trees and emplacements of brushwood, or struggled to get to grips in the snowdrifts. All the elements warred against the invaders' mechanized armament, and though news was sparse, such reports as leaked out to the wider world suggested that here, as in the

Here lie some of the Russian dead who fell in the great Finnish victory at Suomussalmi at the end of the first week in January. The result was the destruction of the Soviet 44th Division as a fighting unit. Over 1,000 prisoners were captured, and the casualties were very heavy. Among the booty were 16 cars fitted with four-barrelled, anti-aircraft machine-guns, one of which is seen in page 35.

Photo, Wide World

Finns Fight Soviet Air Raiders with Soviet Guns

Among the vast mass of guns and munitions taken by the Finns, nothing has been more valuable than the anti-aircraft guns. Here is a Finnish gunner with a Russian anti-aircraft machine-gun preparing it for use against raiding 'planes. The chief value of machine-guns for anti-aircraft work is to keep the attacking 'planes at such a height that accurate bombing is impossible.

Photo, Planet News

Modern 'Ironsides' of the Cromwellian Pattern

The national church of Finland is Lutheran, but there are many Greek-Catholics and some 9,000 Baptists. Above, men of the Finnish army at prayer before going out, like the Cromwellian soldiers of old, to smite the enemy hip and thigh.

At the same time, the Russian division north of Lake Ladoga, under the direct command of General Grigori Stern—who at the end of December had been appointed by Stalin to the command of all the Russian forces from Lake Ladoga to the Arctic—also began to show signs of weakening in the attempt to breach the main Finnish defence line running to the west and north of the lake.

Thus, after six weeks of war the Red Army was still battling only a little way within the frontier. Only in the air had the invaders achieved any success, owing to their overwhelming superiority in bombing 'planes. And even in the air the Finns showed time and again that, given the machines, they had the men and the ability to use them, as when they bombed the Russian air bases in Estonia, and even with audacious disregard of danger the Soviet naval base at Kronstadt.

The Finnish soldiers above are taking possession of a field gun which was among the immense amount of booty taken from the Red Army in five weeks of war.

sectors to the south, the Russians were having the worst of it.

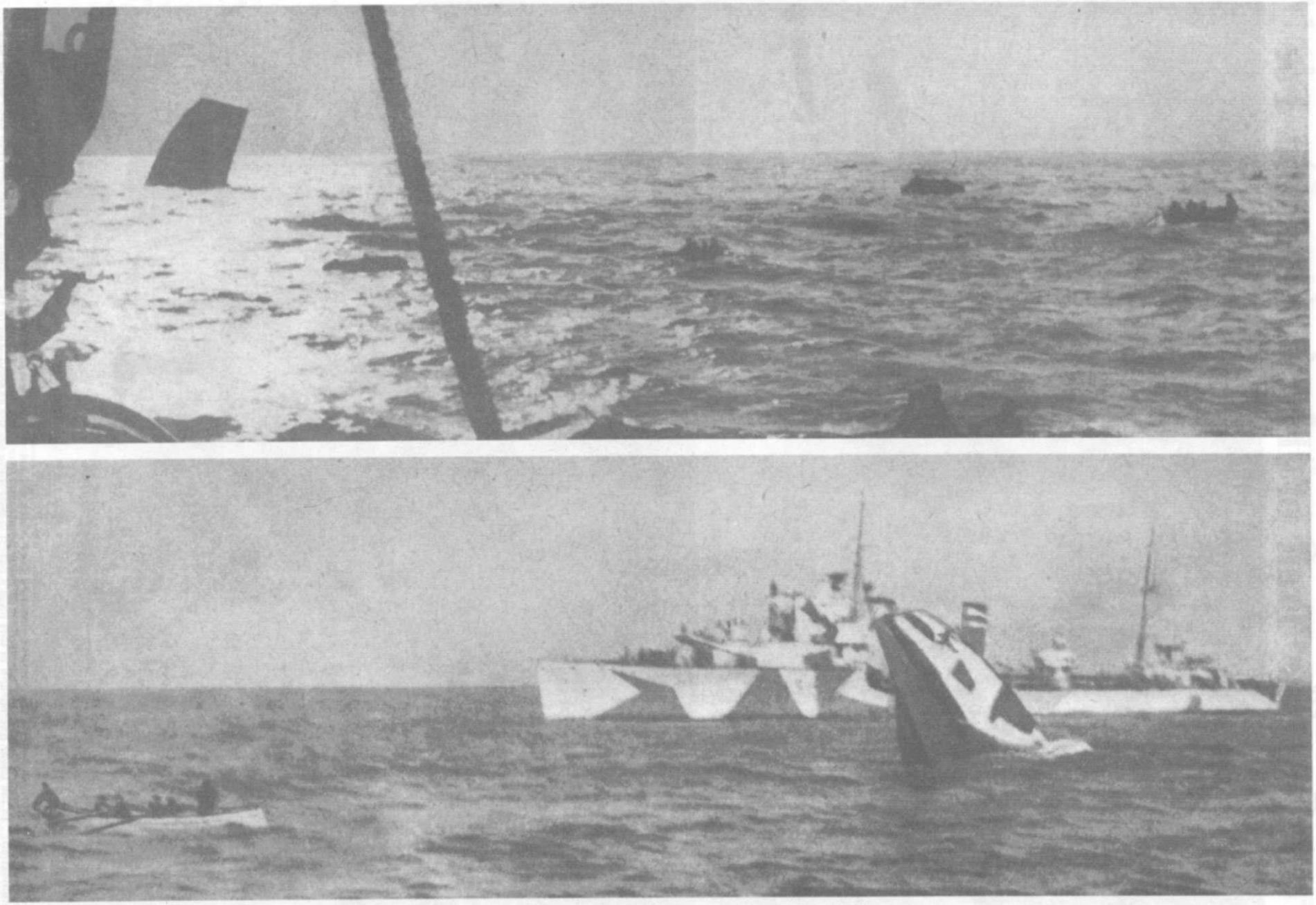
After making a rapid advance in the direction of Kemijärvi, the terminus of the railway from Kemi on the Gulf of Bothnia, the Russians were driven back some thirty miles to the vicinity of Salla. Some 45,000 Russian troops, two Army Corps, were believed to be involved in this movement, and their position was made more critical by the fact that they were fighting about 120 miles from their base on the Murmansk Railway, with which their only line of communication was one narrow road exposed on both sides to the harassing attacks of the Finn ski patrols. The Finns, for their part, were within easy reach of their railhead at Kemijärvi, and so were sure of supplies.

The Finns have shown much ingenuity in [illegible] ll the natural resources of their country play their part in its defence. The great [illegible] which abound in some parts have been used for tank traps, and here we see one such being carted to the front. In page 519, Vol. I, is shown a completed trap of this description. *Photos, Central Press and Planet News*

Hot on the Trail of the Winter-dazed Foe

In their guerilla warfare against the Russian invaders the Finnish ski patrols have covered themselves with glory. Wraith-like in their white snow suits, they have penetrated the Russian lines at many points, and, pushing far into enemy country, have harassed the slender lines of communication. In the lower photograph in this page a patrol is searching for the enemy—and in the upper photograph they have found him.

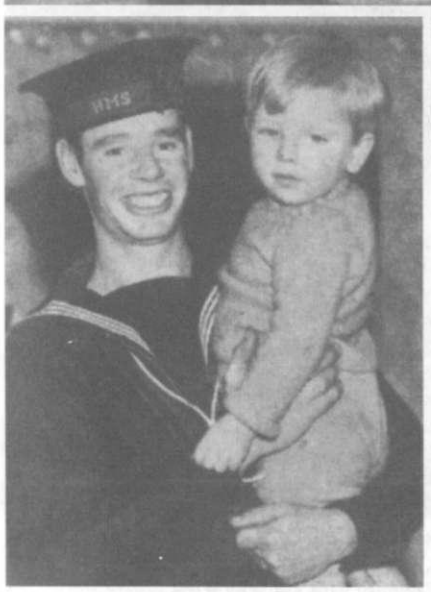
Photos, Planet News



Truly amongst the most amazing scenes ever recorded by the camera are these photographs of the British destroyer "Grenville," sinking in the North Sea on a day in January 1940. Just above the water juts out her bow, the only portion of the ship that remained visible for more than a few minutes after she was struck. The sea is dotted with small boats, rafts and floats picking up the survivors. In the lower picture the camouflaged bow is silhouetted against another destroyer similarly camouflaged.

Photographs exclusive to THE WAR ILLUSTRATED

The Last Man to Leave the Sinking 'Grenville'



This photograph, taken from the deck of one of the rescuing warships, shows the last man (A.B. S. G. Bromfield) to leave the "Grenville." He is balancing himself in a porthole on the bow, and there he clung for an hour and a half, waiting his turn to be taken off. At last he jumped, and was hauled to safety in one of the waiting boats. Left, he is seen at home, safe and sound; he tells his own story in page 59.

Photo exclusive to THE WAR ILLUSTRATED

On the night of January 21, 1940, the Admiralty announced that H.M. destroyer "Grenville," Captain G. E. Creasy, had been sunk by mine or torpedo in the North Sea. While steaming on her course there was a shattering explosion, and as the boat sank she turned sideways so that her crew ran down into the water. There was no time to lower the boats, but fortunately other ships were in the vicinity, and these at once engaged in the work of rescue. It was announced that 123 officers and men were landed at an East Coast port, 8 men were killed, and 68 were missing, "presumed dead."

H.M.S. "Grenville" was launched from the shipyard of Yarrow & Co., Scotstoun, Glasgow, on August 15, 1935. Her displacement was 1,485 tons, and she cost £335,928. Her peacetime complement was 175, but it will be seen that this number had been increased since war began.

The Plans That Took the Wrong Turning!

If a German Officer had not just got married, Belgium might have been invaded by German troops on January 13. . . Fantastic though this may sound, the suggestion is supported by a mass of information collected by the Special Correspondent of "The Daily Telegraph" in Liége, on whose reports the following chapter is based.

We do not know his name, but he was a German staff officer and an important fellow enough—and he felt more important still on that Wednesday in January (the 10th to be exact) when he was handed by his chief a bulky packet of important and highly confidential documents which he was instructed to take at once to the army headquarters at Cologne. He was to travel by train, and the High Command in Berlin had had the forethought to provide him with a first-class railway pass.

The officer was all the more pleased that he had been entrusted with the commission in that only recently he had taken unto himself a wife, who was now living in Cologne. On looking up the times of the trains he found that if he went by rail he would not be able to rejoin her that evening, but just then he learnt that a friend of his, an airman, was on the point of taking off from the Tempelhof aerodrome for Cologne. He decided to take the risk of incurring his superiors' displeasure, rushed post-haste to the aerodrome, and took his place in the 'plane.

As the day wore on they speeded across Germany until they drew near to the Rhine. Then by a most strange mischance the pilot made a big slip in his navigational reckoning and crossed the Rhine far to the north of Cologne. Too late he discovered his error when he found himself being made the target of the Dutch anti-aircraft guns. Turning south he hoped to get back to Germany untouched, but a few minutes later he had to make a forced landing in a field at Mechelen-sur-Meuse, in Belgium.

Clambering out of the machine, our staff officer hailed one of the peasants who hurried up, and asked him for some matches; with these he tried to set fire to his precious documents. Some Belgian soldiers, however, snatched them from his hand and took them and him and the pilot to the nearest military post, where they were subjected to a severe questioning.

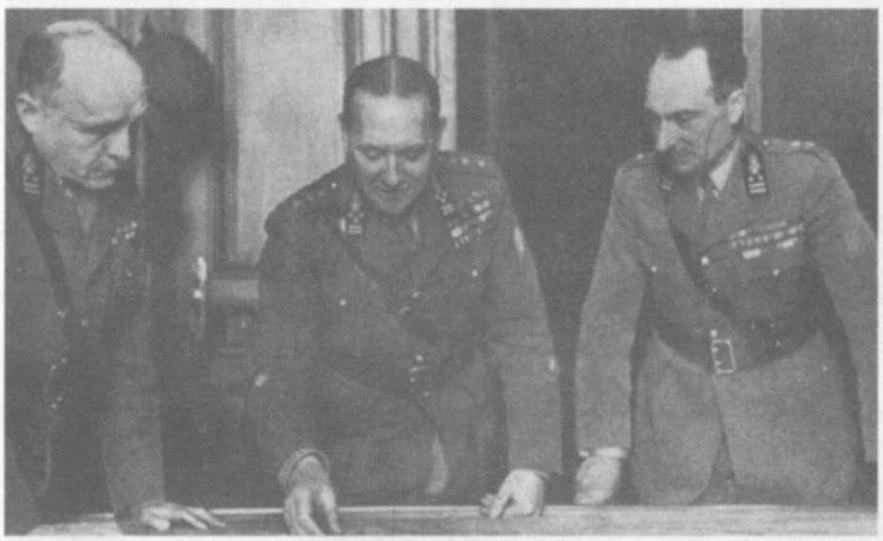
During the interview the packet of documents was placed on the table between the questioner and the questioned, and, seizing a favourable moment, the Nazi officer suddenly snatched them up and threw them into the fire. Before they could be consumed, however, or even charred, a Belgian officer was able to recover them. In a short time they were passed into the custody of the Belgian Intelligence, who perused them once and twice and yet again with ever deepening interest. For these documents were, so it appeared, nothing less than the plans, detailed and minutely particularized, for the invasion of Belgium by the Germans within the next few days!

So extraordinary was the chance which had led to their coming into Belgian hands that it was at once suspected that the plans were a "plant," part of the "war of nerves" waged by Hitler against the neutral States.

But this view, however reasonable it might appear at the outset, was dispelled when news came to hand from the Belgian Intelligence of German troop movements beyond the frontier which were exactly in accordance with those foreshadowed in the document.

Another factor which pointed to their genuineness was that section of the dossier which gave notes on the character and psychological make-up of each of the generals commanding the Belgian Army corps which would have had to bear the brunt of the German invasion. Thus, one of these officers was described as "hard" and another as "soft"; one was characterized as "having swift reactions," another as possessing a "defensive temperament," while one was said to be "hesitant," and another "endowed with great initiative." Moreover, the positions of the Army headquarters and of many of the units were exactly indicated, and there was also something in the nature of a survey of the weak points in the Belgian defences—those points on which the weight of the German onslaught might be expected to fall.

On reflection it seemed hardly probable that the German High Command would deliberately allow the Belgians to realize that they were so intimately acquainted with their defences; and thus there was every reason to believe that the Low Countries did, indeed, escape invasion on January 13 because . . .

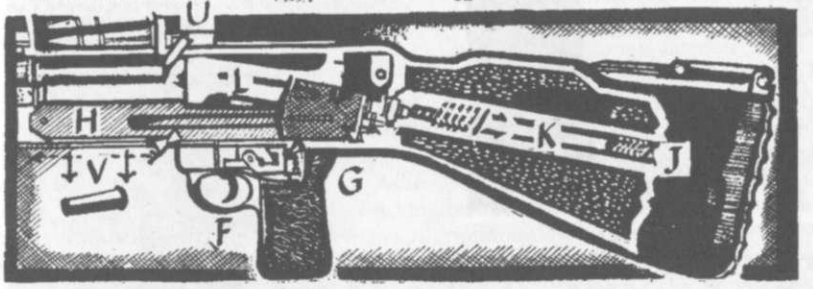


On the three officers above falls the main responsibility—next to King Leopold—for the defence of Belgium. Centre is Lieut.-General Van den Bergen, Chief of the General Staff, and on either side are his principal deputies, Major-General Van Troyen and Major-General Derusseux.

The ice cut from the Dutch canals to clear them for traffic came in useful for tank traps when it was formed into a wall over which it is difficult for tanks to climb.

Photos, R. Capa and Wide World

British Bren Gun Explained in Picture Diagram



In this picture diagram is shown the method of operation of the Bren gun; the firing and recoil mechanism is also illustrated in the inset diagram.

The spring-loaded magazine A containing 30 rounds is clipped on to the gun by means of securing-catch B. The back sight C is adjusted by wheel D, with fore sight E. Gun is then ready for action.

Trigger F has been pressed. This has caused sear G to release slide H which, under pressure from recoil spring J at the base of push-rod K, has moved forward. In moving forward the bolt L strips a cartridge from the magazine into its firing position M. This ends the forward movement and the slide is locked. The bolt hammer N then strikes the firing pin and bullet flies along rifled bore O. As it passes gas block P some of the expanding gases are diverted through gas regulator Q (size of gas opening regulates speed of fire) and gas vent R into gas cylinder S. This forces piston T back, unlocking bolt. The slide then opens breech, extracts spent cartridge, which is drawn back and strikes ejector U and drops through a hole in base of gun V. The piston and slide still drive back, compressing the recoil spring. When the spring expands again it restarts the whole cycle, and continues as long as the trigger is depressed and until the magazine is empty.

W shows a crew using a gun on tripod mounting, and in the background are caterpillar-driven Bren gun-carriers. To eliminate jamming through overheating a spare barrel X is provided, the barrels being changed by means of carrying-handle Y.

Specially drawn for THE WAR ILLUSTRATED by Haworth

To the enormous fire power of the British Infantry the biggest contribution today is made not, as in 1914, by the rifle, but by the Bren gun, with which every battalion is now equipped.

Originally designed and manufactured in Czecho-Slovakia—the gun gets its name from the town of Bren, or Brno, in Moravia—the Bren is now turned out in huge quantities on mass production lines at ordnance factories in Britain, although the present-day model is more elaborate and even more effective than that which was produced at the famous Skoda works. Simple to operate and most deadly in effect, the Bren is an exceedingly complicated piece of machinery, consisting of 172 parts, in whose making 3,000 separate operations are involved.

The Bren gun is 45 inches in length, weighs 21 lb., is gas-operated—gas from the first explosion fires the next round, and so on—and its potential fire is 500 rounds of ·303 ammunition per minute. The actual fire, allowing time for changing the magazine, is 120 per minute. The gun can be regulated to give four speeds and either single or multiple shots.

Another feature in its favour is its extreme mobility, as it may be mounted either on a tripod or a bipod, or fired direct from the shoulder.

Supreme among the advantages of the Bren gun is its adaptability to all the changes and chances of a wartime day. Here we see it mounted on a tripod ready to engage an enemy aircraft. The man on the right has a second magazine in readiness.

Photo, British Official: Crown Copyright

Scandinavia Would Like to Help Finland, But—

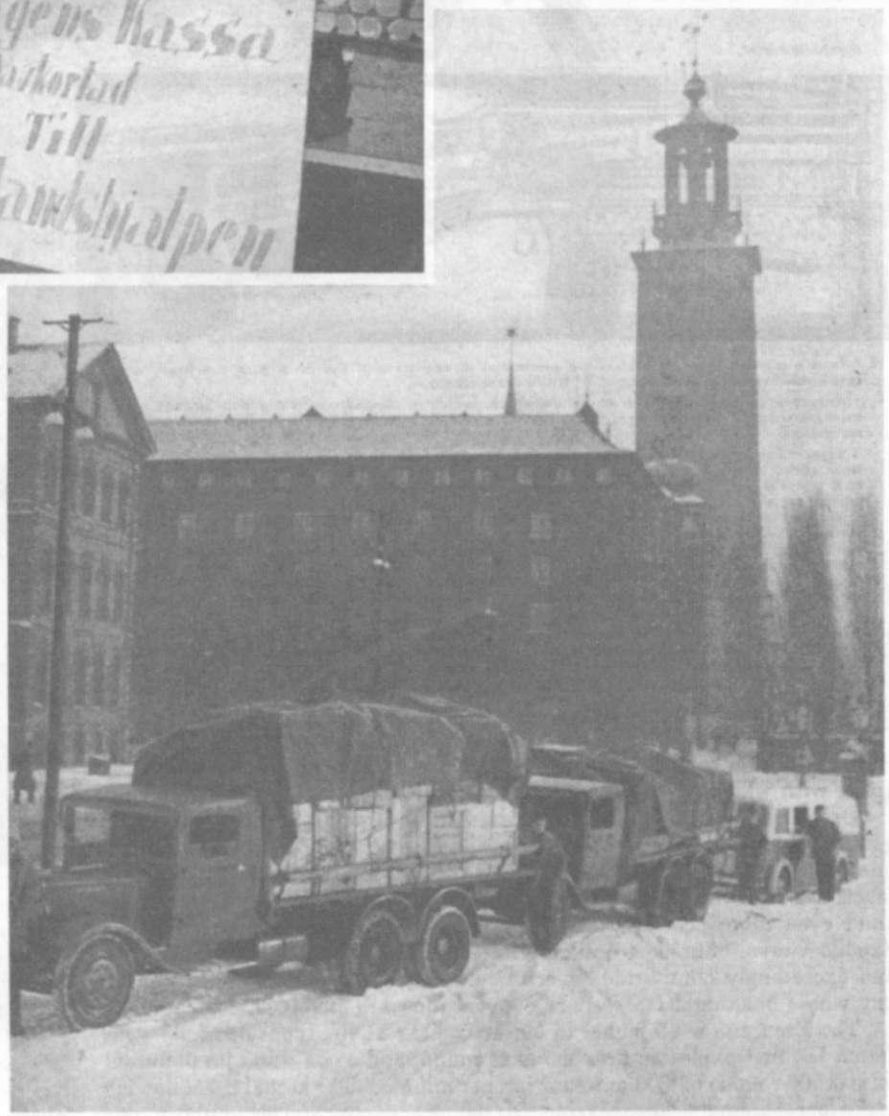
Nowhere has Finland's gallant stand against Russia evoked such whole-hearted enthusiasm as in the Scandinavian countries, in whose fellowship she occupies an honoured place. But sympathy tends to fall short of practical help, for the reasons explained here.

IF Finland goes down, then Sweden, and after Sweden, Norway and Denmark, will be the victims of Bolshevik aggression. It is this conviction that has inspired the Scandinavian countries to support Finland to an extent sufficient to draw from Moscow a protest against what are alleged to be breaches of neutrality.

Although Finland is not one of the Nordic States—her population for the most part is Mongolian in origin, akin to the Hungarians and Estonians—culture and religion, history and literature and national ideals, all go to justify her place among the Scandinavian countries. With Sweden in particular she enjoys the closest relationship, for from the twelfth century until 1809 Finland was a portion of the Swedish realm. Sweden cannot look on unconcerned while Russian 'planes bombard the northern shores of the Gulf of Finland, and month after month attempt to cut through Finland's "waist" and so sever her land communications with Sweden. Oulu, one of the Russian objectives, faces Lulea, the port whence Swedish iron ore from Kiruna and Gällivare is shipped, and if Russia were to seize the Aaland Islands Soviet bombing 'planes would be within a few minutes' journey of Stockholm. Not unnaturally, perhaps, the Swedes suspect that if the Red Army overran Finland it might not be able to resist the temptation to press on to the iron-ore fields in Lapland, and even across the mountain backbone to Narvik, the Norwegian port which is also Sweden's principal gateway on to the Atlantic.

Although economic interest would seem to point to a continuation of a policy of neutrality, Swedish political and cultural sympathies are all exerted in favour of support, so far as may be, of a hard-pressed neighbour. Thus, speaking in the Rigsdag on January 17, the Swedish Prime Minister, Mr. Hansson, said that "while there can be no question of granting permission for the passage of belligerent troops through our country or the use of bases in our territory . . . yet the Swedish nation has warm feelings for Finland and the solidarity of the Northern States is deeply affected by acts of violence against one of them and by threats attempting to force it to leave the Northern Community chosen by it as its vital living space in the widest sense." At the same time he was careful to stress that this attitude did not indicate any hostility towards the Russian people. The Premier's policy of caution and non-intervention was strongly attacked by Mr. Sandler, the former Foreign Minister, whose resignation in December was believed to have been due to Nazi pressure; and while the debate was in progress in the Rigsdag the newspapers bore advertisements which read: "Now the world knows what it is to be a Finn;

"Today's Income in full to the Finland 'Relief"—that is the wording of this placard in a Stockholm delicatessen shop.



Although Sweden is officially neutral in the Russo-Finnish war, popular opinion is strongly on the side of the Finns, and every day large quantities of supplies are sent to Finland by road and rail. Here is one of the caravans photographed in front of the Stockholm City Hall just before setting out for Finland.
Photos, Wide World

So Far Only Volunteers May Enter the Fray

At Tornea, just across the border in Finland, these Swedish volunteers are undergoing a rigorous training before going up to the front.

it is your duty to show what it means to be Swedish. Make up your mind now. Join the Swedish volunteer army. With Finland for Sweden." Moreover, it was plain that the Government would take no steps to prevent the transport of arms and volunteers from other Powers via Scandinavian territory to Finland.

Although Norway is not so pro-Finnish as is Sweden, Norwegian volunteers have flocked over the frontier to help in Finland's defence, and large supplies of food, money and clothes have been dispatched. The Norwegians know well enough that if the Russians make good their hold on Petsamo they may feel tempted to make a grab at Narvik. For the moment, however, they are not worrying overmuch; as one Norwegian newspaper puts it: "As long as the British and French Mediterranean fleets have a free passage through the Dardanelles the gentlemen in the Kremlin will be careful not to commit a burglary in our house." If, however, a "burglary" were attempted, then Norway would be ready to resist by force of arms.

As for the third member of the Scandinavian trinity, Denmark is too close a neighbour to Germany to express anything more than keen sympathy with Finland in her fight for survival.

Germany, indeed, is the main obstacle to Scandinavian co-operation on a really effective scale with Finland. Sweden and, to a lesser extent, Norway fear that if they become embroiled in a quarrel with Russia, Germany might seize the opportunity to invade the southern portion of the Scandinavian peninsula with its innumerable fiords so suitable for submarine bases, and its rich deposits of mineral ores. It should be remembered, too, that Germany has many friends in Scandinavia, and Nazi propaganda has been carried out in a very thorough fashion; apart from the open and official propaganda, indeed, the Nazis have conducted an underground agitation in the course of which they have exercised, and still exercise, marked pressure on Scandinavian newspapers and business firms and through them on public opinion. Nor should it be forgotten that Scandinavian politicians have always regarded Russia as the potential danger, and have inclined to the view that a strong Germany would spell safety for their own countries.

Denmark in particular, but also Sweden and Norway, are considered by the Nazis to be included in the German sphere of influence in much the same way as the Balkans have been held to be part of her *lebensraum* at the opposite end of Europe. This being so, it seems hardly probable that Hitler will allow his Soviet ally to advance beyond the Finnish coasts—even if he can get so far—and secure a foothold in Scandinavia proper. The Berlin-Moscow axis is already being subjected to a considerable strain, and it might even crash altogether if the one partner should "poach" on what the other has come to regard as its preserves. But, what with Russia's threats and Berlin's all-too-ostentatious and obviously dangerous friendship, the future of the Scandinavian countries is dark indeed.

Safe in Sweden this little Finn, whose home has been bombed by the Reds, is receiving a hot meal from a member of the Lotta Svard.

From both Norway and Sweden many volunteers have left to help the Finns in their great fight for freedom. On the left above are some of the first contingent, consisting of 135 men, which left Oslo for Finland early in January. Leaning out of the train window they are cheerfully acknowledging the farewell of the crowd on the platform. On the right, Norwegian ski volunteers are camouflaging their skis by painting them white in readiness for their use amid the Arctic snows.

Photos, Associated Press, Keystone, Central Press, and Planet News

Rumania Looks to Her Moat

Too poor to build a Maginot Line, Rumania has done her best to counter the threat of German and Russian aggression by constructing a vast moat. Some details of this achievement and of the political conditions which have made it necessary are given below.

CAROL'S MOAT, NATURAL BARRIER
B.=BUKOVINA, C.&M.=CRIŞANA & MARAMUREŞ

This map shows the approximate position of the line of defence that King Carol of Rumania has caused to be dug.

"No enemy will ever be able to trample what is sacredly and eternally Rumanian." It is King Carol speaking, and the words are his reply to the suggestion that Rumania might make some sacrifice of territory, whether it be Bessarabia to Russia or Transylvania to Hungary. What we have we hold, is, in effect, Rumania's watchword—hold by the sword, and, it now transpires, by the moat.

The fact that Rumania possessed an entirely new first line of defence in the shape of a tremendous moat was revealed to the world in the middle of January, but its existence had been hinted at a week before when, in a speech to 20,000 soldiers and peasants gathered at Chisinau, the capital of Bessarabia, King Carol warned Stalin that any attempt by Soviet troops to regain Russia's former province would be resisted by the people of Rumania, who would "fight as one living *wall*."

More than 300 miles in length, the moat—it may come to be called in history "Carol's Moat," for it is said to have been built to the King's own designs—is in two main sections. The first runs along the frontier with Hungary from the River Maresh, at the junction of the Yugoslav and Hungarian frontiers, through Crisana and Maramures, to the foothills of the Carpathians; and the second, separated from the first by the mountain range, some of whose peaks rise to 6,000 feet, parallels the River Dniester to the Black Sea. The main portion of the moat is 40' feet wide and about the same in depth, but it is amplified by a number of subsidiary ditches, and rivers and lakes have been worked into the scheme wherever possible. In the hour of danger the whole defensive system could be flooded in a few hours.

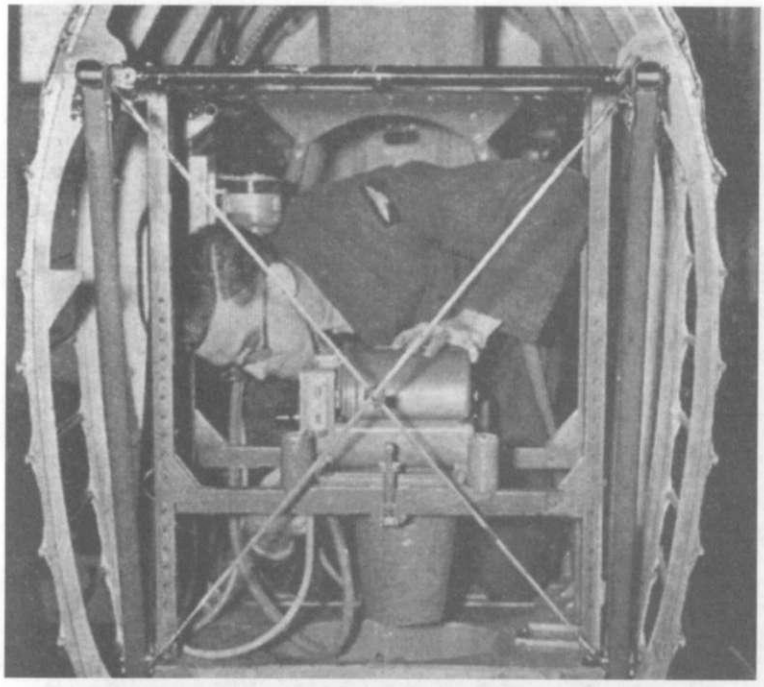
With the moat completed, Rumania can now breathe more freely, for she is no longer exposed to such a sudden invasion as brought Austria, Czechoslovakia, and Poland under the Nazi sway. Enclosed within her moat, the Danube, and the Black Sea, she may bid defiance to her foes, and it is noticeable that of late weeks King Carol has dug his heels in, as it were, and has refused even to consider any question of territorial adjustment. Of the two "revisionist" powers, Hungary has been subjected to considerable pressure by Italy, who possibly fears that Germany and Russia might take advantage of a clash to further their own aggressive designs in the Balkans—a sphere which Italy regards as her special province. The other, Soviet Russia, makes no disguise of its resolve to obtain the restitution of Bessarabia, that south-west corner of the former Imperial Russia which was occupied by Rumania at the end of 1917 following the collapse of the Tsardom, and whose incorporation in Rumania was recognized by Britain and France in 1920.

Bessarabia is one of Europe's racial "melting pots"—of her population of some 3,000,000, about 800,000 are Rumanians, 400,000 Russians, 400,000 Ukrainians, 200,000 Jews, and 100,000 Germans—but in addition to her predominance among a medley of races, Rumania can point to a long historical association. For centuries before 1812, the year in which Russia seized it from Turkey, Bessarabia was part of the Rumanian principality which existed under the suzerainty of the Sultan at Constantinople, and it was to this that King Carol referred in another passage of his speech at Chisinau on January 6. "Every time I come to this corner of the earth between Pruth and Dniester," he said, "I assure you that I do not come to a country which has been re-attached to Rumania, but to a country which has been, is, and always will be Rumanian land. The cities which have for centuries been the sentinels of a frontier must for us all, whether here or in other parts of the Rumanian land, be the sentinels of what will eternally remain Rumanian.

"The songs of our poets of old," he went on, "saying that the enemy cannot penetrate where there is union, must resound eternally in the soul of all Rumanians. . . . All those who live in this region and all Rumanians throughout the country are resolved to remain united."

In the middle of January 1940 King Carol of Rumania visited Bessarabia, the province of his country which before the last war was Russian and which the Soviet Government is believed to covet. He is here seen inspecting troops. On his right is Crown Prince Michael, and on his left M. George Tatarescu, the Premier. *Photo, Keystone*

Eyes that Pierce the Nazi Defences



The air cameras with which were taken such pictures as those reproduced in pages 46 and 47 are vertical, when they are built into the fuselage, as seen above, and "shoot" directly downwards, or oblique, when they are used from the open cockpit (right).

DAY after day the 'planes of the R.A.F. reconnaissance flights bring back photographs taken hundreds of miles behind the front. If we ask why photos are taken rather than bombs dropped we must remember that to bomb with maximum effect it is necessary to have exact maps of the enemy fortifications, roads, railways, and works of one kind and another. Only aerial photographs can give accurate information on these matters, and the man who secures them is performing work of the most vital importance, and his job is as dangerous as any. The photographs in this page were taken at a R.A.F. training centre.

As soon as the reconnaissance aircraft have landed, the exposed films are taken by messenger to a mobile darkroom (above left), and there developed and printed. The map-like pictures are afterwards assembled in a big mosaic, such as the boy apprentices are assembling (above right), which forms a complete plan of the area photographed. The map in page 47 shows a line of division between two photos in mosaic.

Photos, Pictorial Press, Planet News

R.A.F. Over Germany: Just a Few Photos of

Here is the most striking of a series of photographs taken by reconnaissance 'planes of the Royal Air Force when flying over Germany since the war began, and released for publication by the Air Ministry on January 21, 1940. It shows Langenhagen Aerodrome, seven miles from Hanover. The principal features are: A, quarters; B, railway line; C, railway station and platform; D, aeroplane hangars; E, motor transport; F, oil patches made by parked aircraft; G, servicing tarmac; H, main runway; I, aeroplanes just moving off. Many other aeroplanes may be noted on or above the aerodrome.

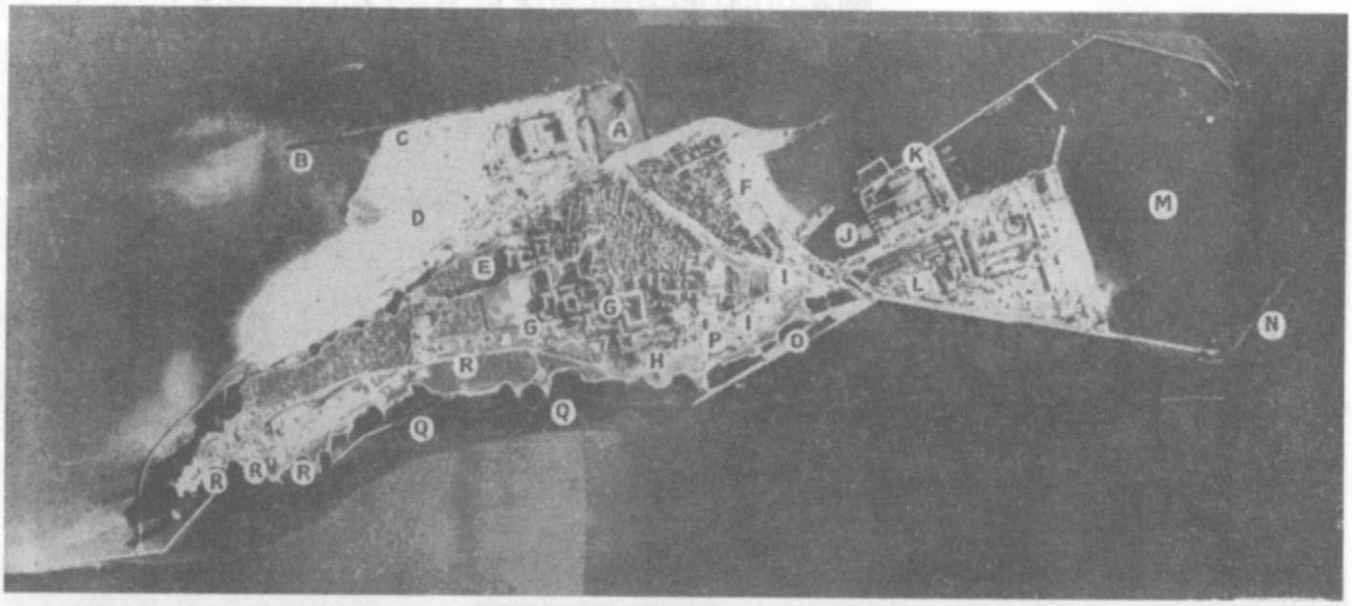
Photo, British Official: Crown Copyright

MANY have been the enemy boasts about the reconnaissance flights they have made over British territory, and the splendid photos they have managed to take back with them. We have published some of these photographs in earlier pages (*see* pages 408 and 409, Vol. I), photographs which the accumulating evidence goes to show ever more probably that they were taken not since, but before the war began. Here in this and the facing page, however, are photographs about which there can be never a doubt. They are photographs of vital spots in Germany's defences, and one and all have been taken by the Royal Air Force on reconnaissance duty over Germany since the outbreak of war.

Let us accompany in imagination a reconnaissance aircraft as it flies over Germany. On approaching the first objective the pilot takes the 'plane down through the cloudbank, sees on the left the circle of hangars, and swings the machine round towards it. A straight and level course, which is necessary for good aerial photography—though it makes gunfire from ground defences more dangerous—is set over the middle of the aerodrome, the cameras are started, and after photographing 20 or 30 'planes lined up 2,000 feet below, the aircraft goes on to its next objective.

Suddenly the pilot turns the aircraft off its pre-arranged course and signals to the observer to start the vertical (fixed) camera; he has seen an "ersatz," or substitute, landing-ground. At their farthest point the observers prepare to photograph another aerodrome. There is some activity ahead, but it is not until the third aerodrome is reached that the R.A.F. machine encounters opposition. Most of the necessary photographs have been taken, however, before

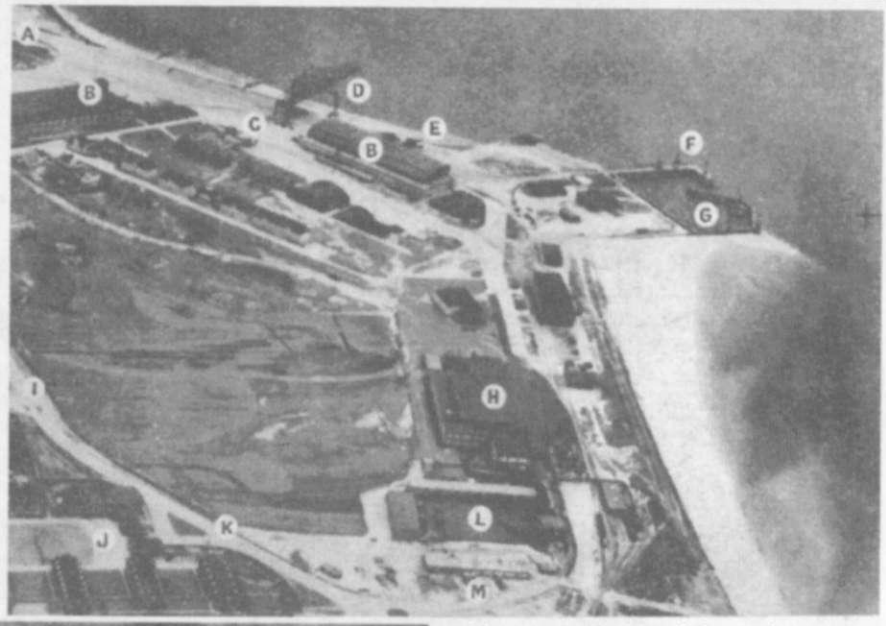
the Many Thousands Taken Since the War Began

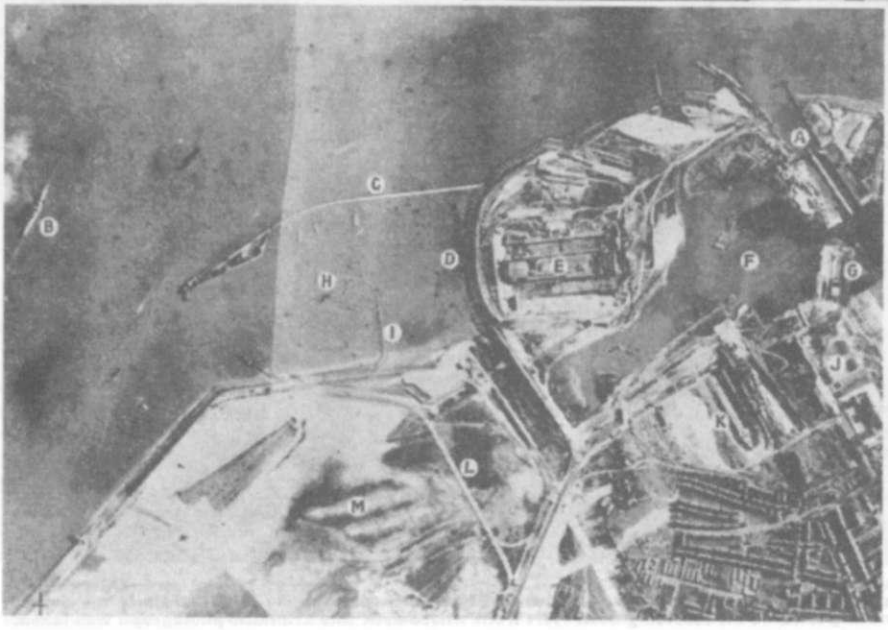


Above is Heligoland, photographed from an R.A.F. 'plane as it flew above the strongly-fortified German island: A, new harbour—with dredger; B, new mole; C, pipe-line pumping silt; D, area being reclaimed—possible future aerodrome; E, Oberland; F, Unterland; G, barracks; H, lighthouse; I, tunnel entrances from Oberland to Unterland and vice versa; J, war vessels; K, hangar; L, naval stores; M, outer harbour; N, old mole—destroyed after last war; O, anti-aircraft battery; P, tunnel entrances down to harbour; Q, protected wall to prevent erosion; R, gun positions.

the enemy fighters dive down on the raider from behind. Our air-gunners hold their fire until the enemy are close, the while their machine keeps on its course until the camera has finished its task. Only then does it slip upwards into the clouds.

At the final aerodrome on the list it is necessary to drop to 1,000 feet in order to make sure of getting good results, and the observer now uses his oblique camera. Pom-poms and machine-guns fire at the intruder, but it is off again before any damage can be done. At





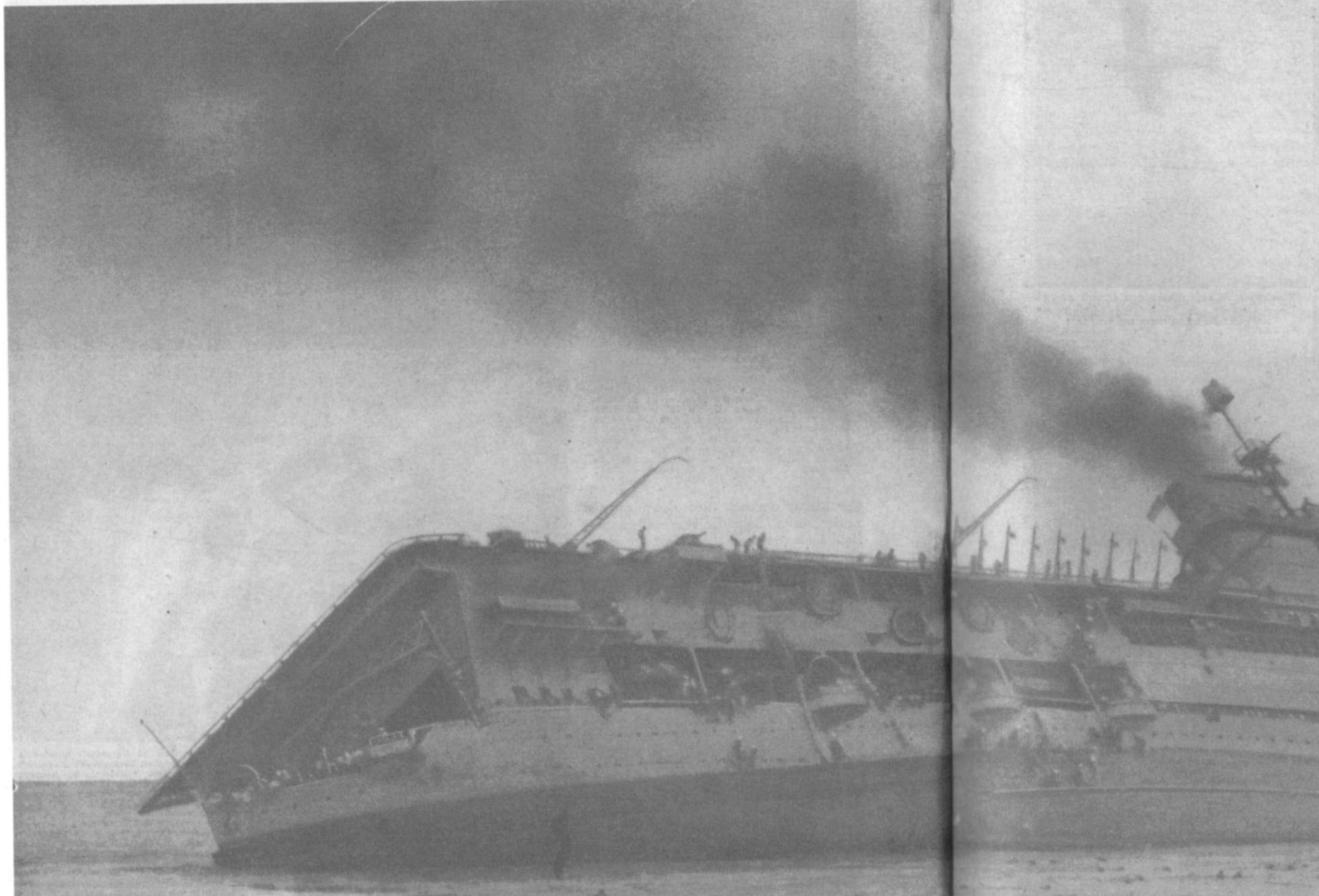
Notorious as the base of Germany's minelaying 'planes, the island of Sylt here reveals its secrets (above). A, wireless station; B, hangar; C, seaplanes; D, crane for lifting aircraft off water; E, aircraft; F, cranes; G, harbour; H, repair hangar; I, motor vehicles; J, barracks; K, men; L, motor transport sheds; M, building under construction. On the left is an air photograph of Germany's great naval base at Wilhelmshaven: A, existing harbour (entrance and lock gates); B, capital ship; C, new mole; D, entrance to harbour will be cut through here; E, new locks under construction; F, north harbour; G, coffer dam; H, dredger sucking silt out of future channel and pumping it out in reclaimed area; I, pipe line; J, barracks; K, new dry dock under construction; L, causeway carrying light railways to service construction work; M, large area being reclaimed from the sea.

Photos, British Official: Crown Copyright

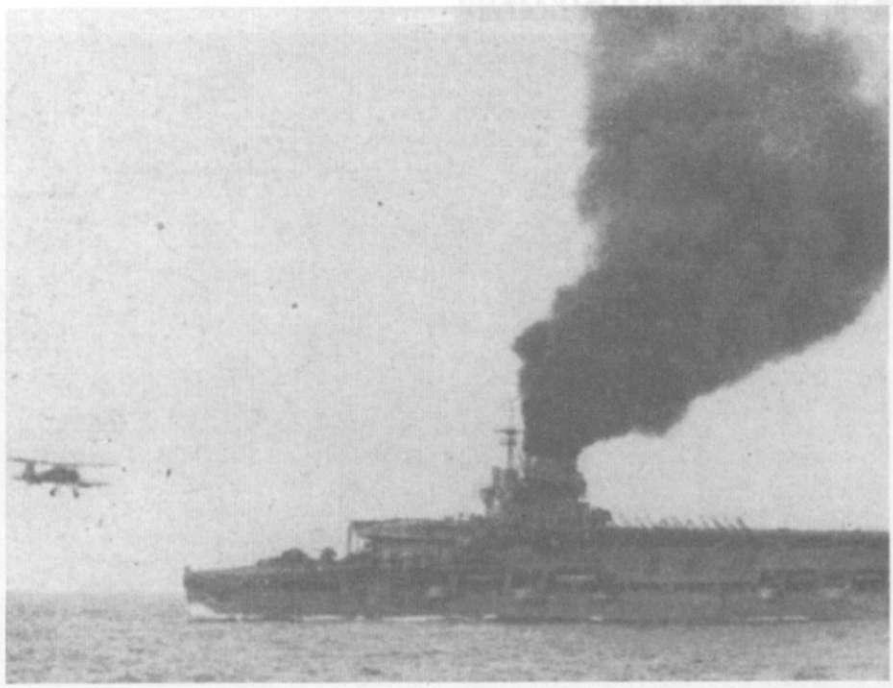
home the magazines are removed for developing and printing, the observer makes his report, and in two or three hours the prints are being inspected by experts. Stereoscope and magnifiers tell them much that was unseen even by the trained observer in the aircraft—how much, will be apparent even to the untrained eye from a study of the photographs reproduced in these pages.

In the Fading Light of a September Day H.M.S. 'Courageous' Lurc

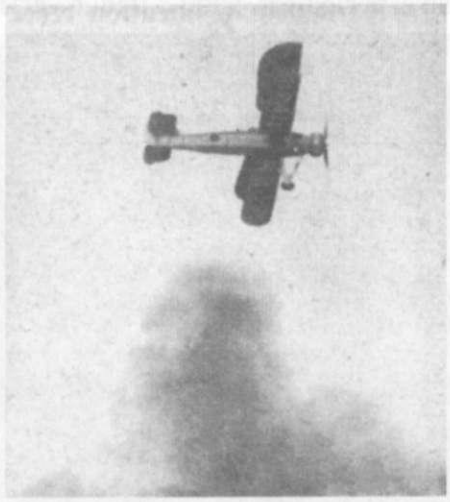
Photograph Just Released by the Admiralty of Britain's First Naval Disaster—exclusive periodical publication reserve



Last 'Plane to Land on the Doomed 'Courageous'

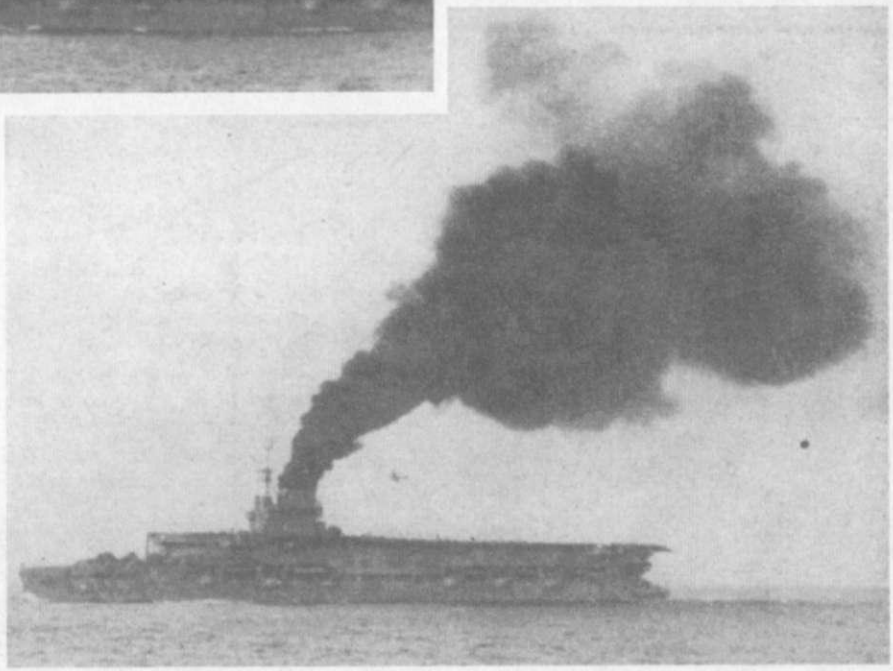


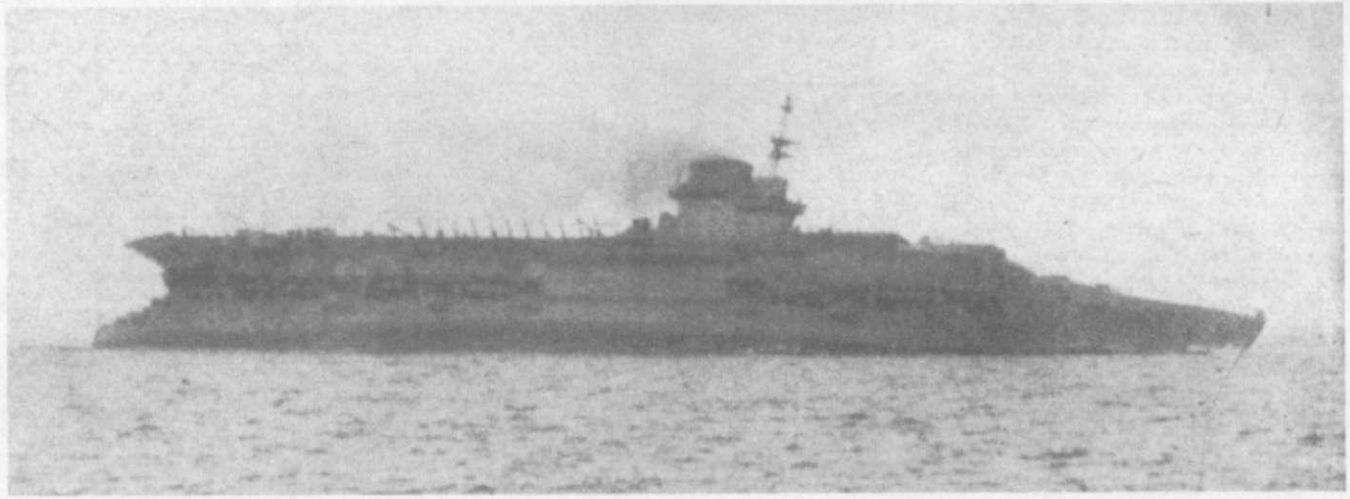
Above, the last 'plane to land on the deck of the "Courageous" is just returning. Probably at that very moment the warship was centred in the submarine's periscope.



The pilot is here making a circuit of the "Courageous." Soon this 'plane and all its fellows will be beneath the waves.

When the event was still hot from the anvil of time we published in The War Illustrated an eyewitness story by Marine M. Reidy of H.M. Aircraft-Carrier "Courageous," which was sunk by enemy action on September 17, 1939 (*see* pages 115–117, Vol. 1). Now we are able to reproduce photographs of the actual sinking of the great ship—photographs which are exclusive, so far as periodical publication is concerned, to The War Illustrated. So in this and the previous pages Britain's first naval disaster of the War comes to life before our eyes. We are able to experience the drama of a great situation, its excitement, its tension, its horror.





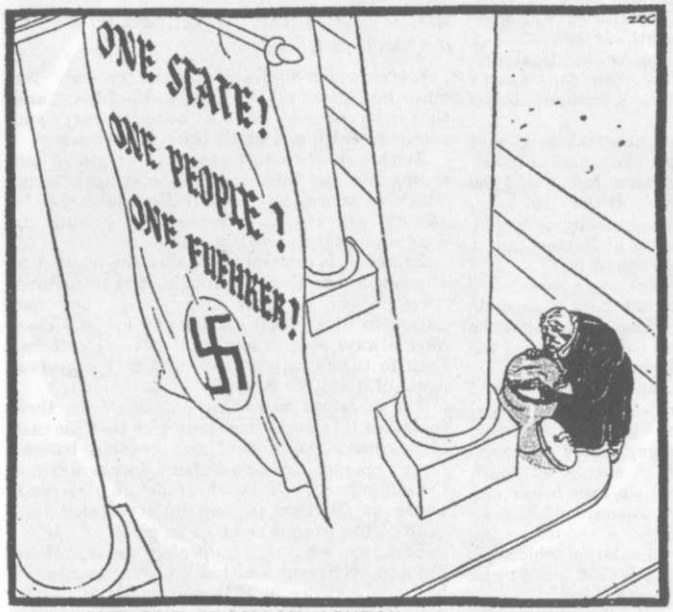
Centre, the 'plane is still flying above the "Courageous," which, as can be seen from the bow wave, is moving at some speed. The bottom photograph, taken only a few minutes later, shows the "Courageous" with a definite list after she had been torpedoed. How quickly the end came can be judged by the fact that she still had some way on as the slight wake and bow waves prove.

Photos, Associated Press. Exclusive to The War Illustrated

Britain's Blockade is Germany's Nightmare

Learning from the experience of the last war, the Allies are exercising a degree of economic pressure on the Nazi Reich which already is not far short of a stranglehold. Sooner or later Germany must crash in the economic sphere—if she has not previously been defeated on the field of battle.

IN the armoury of the Allies one of the strongest weapons—Time may prove it to be the most powerful of all the weapons at our disposal—is that of economic warfare, called briefly, though not quite accurately, the blockade. Economic warfare means attacking the industrial, financial, and economic structure of the enemy in such a way as to cripple and enfeeble his armed forces so that he can no longer effectively carry on the war. That is the definition of Britain's Minister of Economic Warfare, Mr. R. H. Cross, given in the course of the speech in the House of Commons on January 17 in which he reviewed the development of the economic campaign against Germany. On the whole, his review was decidedly encouraging.



"—AND ONE STOMACH ACHE!"
Cartoon by Zec, courtesy of the "Daily Mirror"

"We have made a good start," he said. "We must bear in mind that Germany has not the same resources as she had some twenty-five years ago. Her resources in gold and foreign currency are smaller; her stocks of industrial raw materials are far smaller."

Already conditions of life in Germany are strained; rationing extends to clothes and soap, and the inhabitants of Berlin are shivering for want of coal which is being used to provide synthetic rubber and for the export market. On every hand there are signs of an abnormal desire to convert currency into goods for fear of future inflation—there has been a rush to buy large quantities of zinc baths, for instance, because they are not rationed, and what are called "black markets" (i.e. markets for sale of goods at unofficial prices) for food are growing up in some centres.

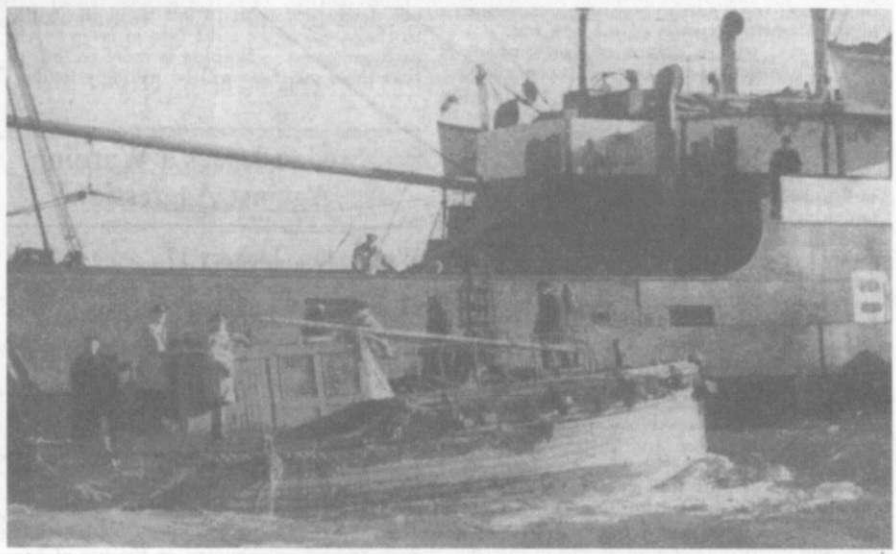
"A neutral this Christmas sent a cake to somebody in Germany. The father of the family, thanking him, said that he and his family wondered when they would see another. Yet," went on Mr. Cross, "sufficient crayfish are being imported from the Danubian countries to provide a standing delicacy on the tables of the Nazi party leaders."

Germany's difficulties in regard to the supply of certain raw materials—petroleum, iron, copper, wool, cotton, oils and fats—are very serious, and there are many examples of shortages in her export trade. Thus, she has been trying to export cars and bicycles to adjacent countries without tires. There are reports of important steelworks which have had to stop for lack of raw materials; many factories in Austria engaged in making rubber goods have had to close for the same reason; and in others where the raw materials were obtainable there has been a lack of accessories.

As practically all Germany's supplies of raw cotton and 85 per cent of her supplies of wool were obtained before the war from overseas, it is not surprising that the textile situation is now acute, and that rationing has had to be introduced for clothing of all kinds. At this point in his speech Mr. Cross produced a ration card for clothing, one of the type used for men in Czecho-Slovakia. It revealed quite an interesting system, he said, and worked something like a parlour game. There were a hundred coupons which might be detached and which had to last for a year. The holder had to give up 60 coupons for one suit, two coupons for a handkerchief, 50 for a mackintosh, 20 or 30 for a shirt, and so on. Other articles, such as blankets, linen, and table linen, can be obtained in Germany only on production of a licence.

"After four and a half months of war," Mr. Cross concluded, "we can fairly claim that there are no great leakages through the control, and that virtually the whole of Germany's imports which can be assailed by that weapon have been effectively stopped. We look forward to the day when we shall have so strangled Germany's economic life that she can no longer sustain her war effort. We believe that we can bring very much nearer the day of victory, and in doing so we shall have played a great part in saving the lives of our own people."

In the House of Lords on the same afternoon Lord Hankey, Minister without Portfolio, made a similar review of the economic war—a review which might be summed up in his words, "Germany is certainly feeling the pinch." The German people, he went on, were faced by an "inescapable nightmare" that they might experience a failure in some vital raw material, and he concluded by declaring that, "As in the last war, when the day of military defeat arrives, this economic weapon may well prove decisive."



Off one of the contraband control ports where the cargoes of out-going neutral ships are examined, a tender is coming alongside a ship to put the examining officers on board. The boat is a small wooden-built motor-launch, such as ordinarily ply in harbours.
Photo, Keystone

WORDS THAT HISTORY WILL REMEMBER

Extracted from Authoritative War Speeches and Statements Week by Week

(*Continued from page 18*)

Finnish Victory a Triumph Over Brutality

Thursday, January 11, 1940

M. HERRIOT, in his Presidential address to the French Chamber of Deputies:

With an audacity which at any other time would have seemed comical, the two dictators are accusing us of imperialism at a time when they themselves are busy trying on the boots of Frederick and Peter the Great. France and Great Britain, for their part, have been obliged to stand up in defence of liberty, the rights of conscience and moral law, after having used all the resources of patience and swallowed their pride and so-called prestige in their passionate desire to save human lives. They are defending what President Roosevelt called "democracy, the best form of government hitherto created by humanity. . . ."

Far up in the north a little country, whose heroism is a wonder to the whole world, is fighting against a regime which has taken upon itself the task of crushing weak nations and of finishing off stricken countries. Finland represents not only the outpost of Western civilization; her victory, pure as the snow of her land, represents the first triumph of the spirit over brute matter, of human values over brutality. As the British and French Governments have already declared, their duty and the interests of their own cause call for the granting of all the aid in their power. . . .

Britons Must Pay the Price of Freedom

Saturday, January 13

SIR JOHN SIMON, Chancellor of the Exchequer, in a speech at Glasgow:

There are no people in the world more deeply and sincerely devoted to peace than the British people. We have no desire to attack or invade others. We hate the suffering and the slaughter involved. We seek no territory.

The last thing we would choose to do is to expose ourselves and our fellow-countrymen to these cruel trials and to consume our resources in the frightful expense of modern war.

And yet, with a degree of unity which is without parallel in our history, this peace-loving democracy of ours has deliberately reached the conclusion that there is no other course open to us but to enter, along with France and Poland, into this fearful struggle.

That is a fact which the Germans would do well to ponder. In a country like Britain, where individual opinion is so free to express itself and where controversy is the very breath of our nostrils, so complete an agreement is truly remarkable.

In the British character—certainly in the Scottish character—there is a striking blend of idealism and of realism. Hitler's declarations and actions have brought together both points of view in a common resolve that Hitlerism, and what it stands for, must be overthrown.

The idealist who hoped for a world of universal peace, with tolerance and justice for all and with friendly relations between all States, feels that such hopes are idle as long as these Nazi bullies are free to overrun Europe, to enslave the Czechs, to carve up Poland, to torture the Jews, and to crush liberty by means of the concentration camp.

And at the same time, the realist, from his severely practical point of view, feels that his life is made intolerable by these recurrent crises and perpetual threats of violence. . . .

German propaganda is fond of suggesting that Britain represents an effete democracy, living on the traditions of the past, and that the vigour of youth belongs to other States.

Where will you find youth and vigour better represented than in our own soldiers, sailors, and airmen, or in those Dominion contingents which are freely joining us with such determination in the struggle to vindicate liberty?

Although Czecho-Slovakia has been conquered and Poland has been riven in twain, Czechs and Poles are organizing their scattered forces at our side. American opinion, while strictly maintaining neutrality, makes no secret of its sympathies, and in spite of Lord Haw-Haw Germany by this time knows on which side lies the moral support of the world.

To us liberty means freedom of conscience, of opinion, and of religion. How much of that is there in Nazi Germany, when Pastor Niemoller, even after being acquitted by a German court, is kept in prison for years, and when men and women are scourged and bullied in concentration camps because of their race or their creed? Again, liberty to the British workman means freedom to combine with his fellows. Yet in Nazi Germany all trade unions are illegal; the co-operative movement has been suppressed; workers' meetings cannot be held without official permission.

The Gestapo may visit a house at night and carry its victim off without the slightest possibility of protest. Nazi Germany today, and the surrounding countries which Hitler has overwhelmed, are countries governed by a system which is a complete negation of human rights, and which is only accepted out of fear.

The Nazi system of government is indeed based on the view that human beings, as such, have no rights, and that nothing matters but the development of the race and the success of the State. That is the quintessence of tyranny.

Let no one suppose that the war can be carried on to the only conclusion which free men and women would tolerate without incurring immense burdens and making heavy sacrifices.

The comparative quiet of events at home, and the limited extent of our own losses and sufferings in the field, may encourage the view that victory can be achieved without the full contribution of the whole population which will really be necessary. That would be a false view, a dangerous view—a fatal view.

There can be no better service rendered to our democracy than to tell them the truth as to the sacrifices we must face in order to vindicate our cause. Nothing is more certain than that these sacrifices will be willingly made.

Sweden Issues a Warning Against Aggression

Wednesday, January 17

MR. HANSSON, Swedish Prime Minister, in the Parliament at Stockholm:

We need no orders from abroad concerning our relations with Finland. We judge for ourselves freely how best to serve the cause of Finland and the Northern countries. . . .

We have neither been submitted to pressure from the Western Powers nor threatened by Germany. Any attempt to violate our neutrality will be met with all means at our disposal. There can be no question of breaches of neutrality such as permission for the passage of belligerent troops though our country or the use of bases in our territory.

Sweden is continuing her collaboration with the small free States. The aim of this collaboration between the Northern States is to ensure neutrality and independence. There was never any question of a military coalition and there is no obligation on Sweden to go to the help of Finland.

The Swedish nation has warm feelings for Finland, and the solidarity of the Northern States is deeply affected by acts of violence against one of them and by threats attempting to force it to leave the Northern community chosen by it as its vital living space in the widest sense. That does not indicate any hostility towards the Russian people.

Help for Finland is a subject which has the sympathy of the Swedish Government, but caution must be used if we are to avoid becoming a party to the conflict.

'Service on the Home Front Means Sacrifice'

Saturday, January 20

LORD HALIFAX, Foreign Secretary, in a speech at Leeds:

We are under no illusion about the war. We know how great are the issues—the liberty and the independence of our own country and commonwealth and of all European States.

Neither do we underrate the strength of our enemy nor the sternness of the struggle upon which we are engaged. We realize that to secure victory will require all the energy and the resolution that we can command. . . .

I think it is certainly true that the instinct of our people has always throughout their history, driven them to resist attempts by any one nation to make itself master of Europe. They have always seen in any such attempt a threat both to their own existence and to the general cause of liberty in Europe. . . .

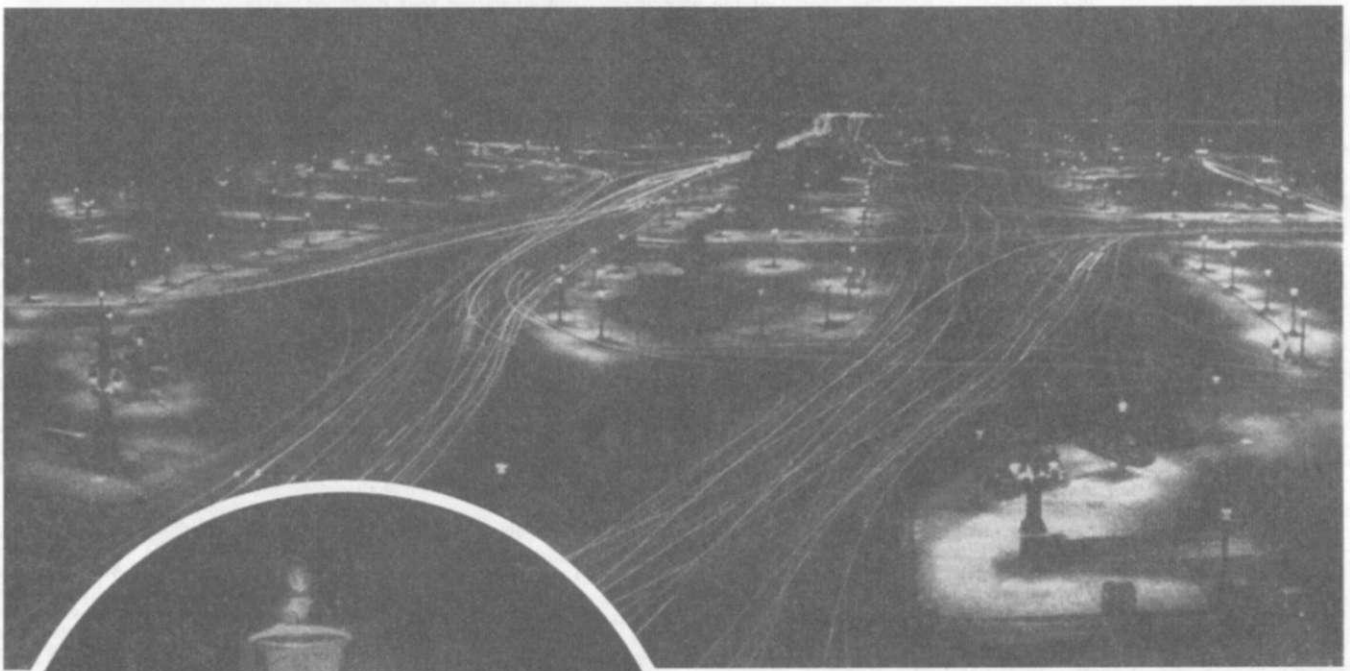
The occasions of war are not, of course, their fundamental cause. It is quite true that the case of aggression on Poland was covered by our formal commitments to Poland, but it was not Poland in itself, but the whole picture of German policy as, by then, it had been revealed that caused that commitment to be given. . . .

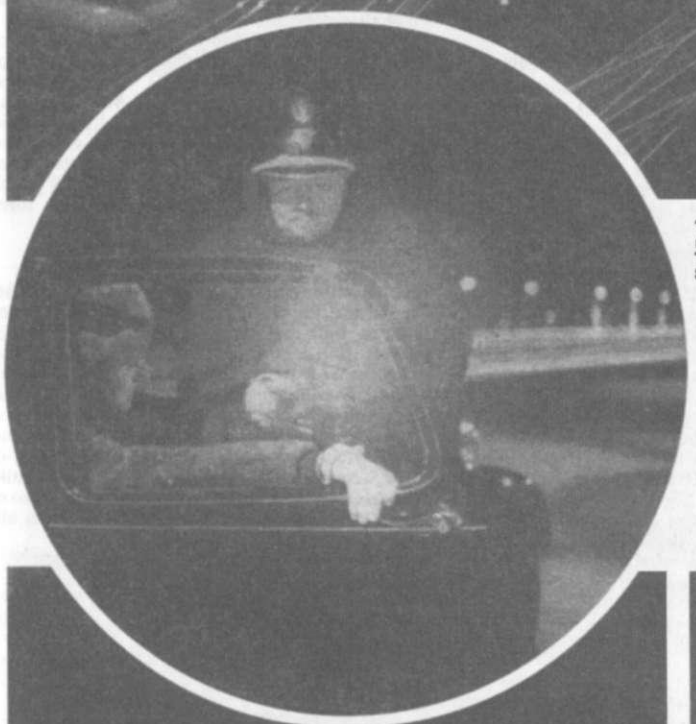
Look at what is happening in regard to Finland. Germany assisted Finland to maintain her independence in 1918 and has been on the most friendly terms and relations with her ever since. Now her independence is threatened by a brutal and totally unprovoked aggression for which Germany, by one of the most cynical acrobatic feats in political history, which has brought new dangers to European society, must bear her own share—and it is a heavy share—of blame . . .

I have heard it said by men of sound judgement that if the winter were to pass without a great land offensive by Germany it would be the equivalent of a major victory for the Allies. I am not competent to assess the value of that opinion, but I can say that the Allies have made great use of these last months to push on with our production, to land our ever growing Expeditionary Force in France, and above all to co-ordinate our war effort with that of France . . .

The land front against Germany in the West stretches from the Shetlands to Switzerland. Every yard of that front must be held with equal resolution, and the holding of it is going to demand heavy sacrifices from us all, and service on the home front means sacrifice . . . It means cutting out all but absolutely necessary expenditure; it means lending to the State every penny that we can; it means changes in industry to meet the great demands of war production, and it means for everybody—or ought to mean for everybody—hard and unremitting work.

Paris Black-Out Is Not So Very Black

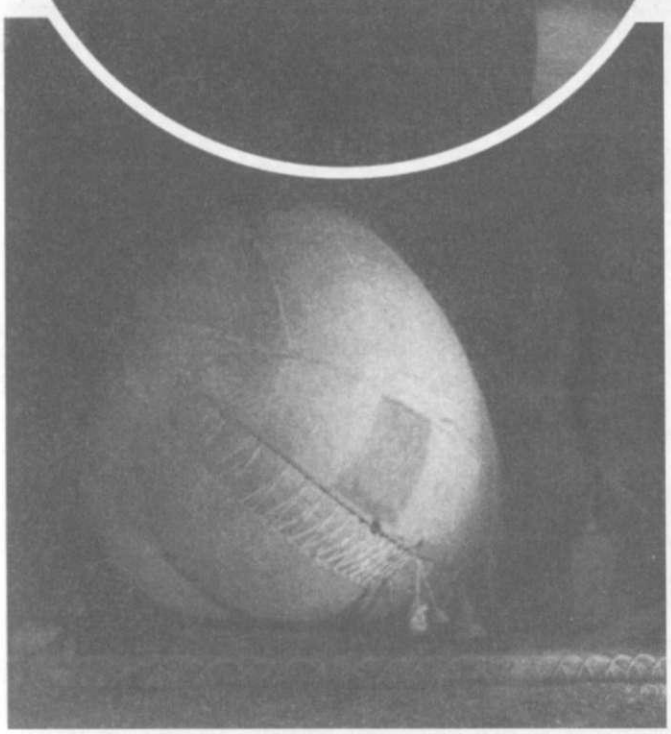


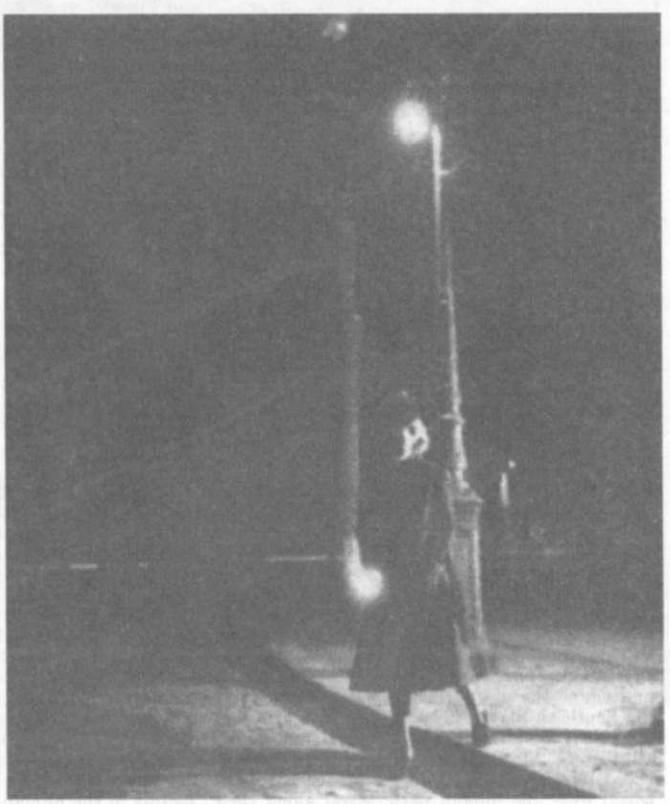


The photograph above of the Place de la Concorde, taken with a two minutes' exposure, reveals the extent to which Paris is blacked out. The lines of light to the left show traffic coming from across the Seine, and those to the right cars going towards the Champs Elysées. In the centre is the strongly sandbagged Luxor obelisk.

THE black-out in Paris is not so complete as that in London. The street lamps are obscured only by a blue shade, which prevents direct beams of light from going upward. Paris has one great advantage over London, as the whole of the street lighting is centrally controlled and can be extinguished when an air raid warning is given.

Photos, "Match," Paris; Exclusive to THE WAR ILLUSTRATED





In the centre photograph a policeman has stopped a car to examine the driver's papers. Above, one of the Paris barrage balloons is ready to go up when a warning is given. Though Paris is not so dark as London, most Parisians, like the lady right, carry torches.

'THINGS ARE NOT GOING SO BADLY AFTER ALL'

In a typically outspoken broadcast on January 20, 1940, Mr. Winston Churchill expressed his satisfaction with the course of the war at sea, and suggested that it would be to the advantage of the small neutral States if they stood together with the British and French Empires against aggression.

MR. CHURCHILL began by emphasizing that, in spite of the Nazis' threats against the Western democracies, so far it was the small neutral States that were bearing the brunt of German malice and cruelty.

The Dutch, the Belgians, the Danes, the Swedes, and, above all, the Norwegians have their ships destroyed whenever they can be caught upon the high seas. It is only in the British and French convoys that safety is to be found. There it is 500 to 1 against being sunk. There controlling forces are at work which are steadily keeping open the traffic of the seas and establishing order and freedom of movement amid the waves of anarchy and sea-murder. . . . We feel ourselves more confident day by day in our ability to police the seas and oceans and keep open and active the salt-water highways by which we live and along which we shall draw the means of victory. **It seems pretty certain tonight that half the U-boats with which Germany began the war have been sunk, and that their new building has fallen far behind what we expected. Our faithful Asdic-detector smells them out in the depths of the sea, and with the helpful aid of the Royal Air Force I do not doubt that we shall break their strength and break their purpose.**

Mr. Churchill, continuing, said that after nearly five months of warfare at sea the first U-boat campaign for the time being was utterly broken, the mining menace in good control, our shipping virtually undiminished, and all the oceans of the world free from surface raiders, and went on:

I have always, after long and hard experience, spoken with the utmost restraint and caution about the war at sea, and I am sure that many losses and misfortunes are lying ahead of us there; but in all humility and self-questioning I feel able to declare that at the Admiralty, as at the French Ministry of Marine, **things are not going so badly after all. Indeed, they have never gone so well in any naval war.** We look forward as the months go by to establishing such a degree of safe sailings as will enable the commerce of all the nations whose ships accept our guidance not only to live but to thrive. This part, at least, of the Nazi attack upon freedom is not going to bar the path of justice or retribution.

Who Will Be the Next Victim?

VERY different is the lot of the unfortunate neutrals. Whether on sea or on land they are the victims upon whom Hitler's hate and spite descend. Look at the group of small but ancient and historic States which lie in the North. Or look again at that other group of anxious peoples in the Balkans or in the Danube Basin, behind whom stands the resolute Turk. **Every one of them is wondering who will be the next victim on whom the criminal adventurers of Berlin will cast their rending stroke.**

A German major makes a forced landing in Belgium with plans for the invasion of that country whose neutrality Germany has so recently sworn to respect. In Rumania there is deep fear lest by some deal between Moscow and Berlin they may become the next object of aggression. German intrigues are seeking to undermine the newly strengthened solidarity of the Southern Slavs. The hardy Swiss arm and man their mountain passes. The Dutch, whose services to European freedom will be remembered long after the smear of Hitler has been wiped from the human path, stand along their dykes as they did against the tyrants of bygone days. All Scandinavia dwells brooding under Nazi and Bolshevist threats.

Only Finland, superb—nay, sublime—in the jaws of peril, shows what free men can do. The service rendered by Finland to mankind is magnificent. Many illusions about Soviet Russia have been dispelled in these fierce weeks of fighting in the Arctic Circle. . . . We cannot tell what the fate of Finland may be, but no more mournful spectacle could be presented to what is left of civilized mankind than that this splendid Northern race should be at last worn down and reduced to servitude worse than death by the dull, brutish force of overwhelming numbers. If the light of freedom which still burns so brightly in the frozen North should be finally quenched it might well herald a return to the Dark Ages, when every vestige of human progress during 2,000 years would be engulfed.

Lamentable Plight of the Neutrals

BUT what would happen if all these neutral nations I have mentioned, and some others I have not mentioned, were with one spontaneous impulse to do their duty in accordance with the Covenant of the League and stand together with the British and French Empires against aggression and wrong? At present their plight is lamentable, and will become much worse. They bow humbly and in fear to German threats of violence, comforting themselves meanwhile with the thought that Britain and France will win, that they will strictly observe all the laws and conventions, and that breaches are only to be expected from the German side.

Each one hopes that if he feeds the crocodile enough the crocodile will eat him last. All of them hope that the storm will pass before their turn comes to be devoured. But the storm will not pass. It will rage and roar ever more loudly, ever more widely. It will spread to the South. It will spread to the North. There is no chance of a speedy end except through united action, and if at any time Britain and France, wearying of the struggle, were to make a shameful peace nothing would remain for the smaller States of Europe, with their shipping and their possessions, but to be divided between the opposite, though similar, barbarisms of Nazidom and Bolshevism.

These small States, continued Mr. Churchill, were alarmed by the fact that the German armies were more numerous and their air force still more numerous, and also that both were nearer to them than the forces of Great Britain and France.

Certainly it is true that we are facing numerical odds, but that is no new thing in our history. Very few wars have been won by mere numbers alone. Quality, will-power, geographical advantages, natural and financial resources, the command of the sea, and, above all, a cause which rouses the spontaneous surgings of the human spirit in millions of hearts—these have proved to be the decisive factors in the human story.

If it were otherwise how would the race of men have risen above the apes; how otherwise would they have conquered and extirpated the dragons and monsters of the prime; how would they have evolved the moral theme; how would they have marched forward across the centuries to broad conceptions of compassion, of freedom, and of right? How would they ever have discerned those beacon lights which summon and guide us across the rough dark waters and presently across the flaming lines of battle towards the better days?

Numbers do not daunt us. 'But even judged by the test of numbers we have no reasons to doubt that once the latent and now rapidly growing power of the British nation and Empire are brought, as they must be and as they will be, fully into line with the magnificent efforts of the French Republic, even in mass and weight we shall not be found wanting.

When we look behind the brazen fronts of Nazidom, as we have various means of doing, we see many remarkable signs of psychological and physical disintegration. We see the shortages of raw materials which already begin to hamper both the quality and the volume of their war industry. We feel the hesitancy of divided counsels, and the pursuing doubts which assail and undermine those who count on force and force alone.

'The Joy-bells Will Ring Again'

IN the bitter and increasingly exacting conflict which lies before us we are resolved to keep nothing back and not to be outstripped by any in service to the common cause. Let the great cities of Warsaw, of Prague, of Vienna banish despair even in the midst of their agony. Their liberation is sure. The day will come when the joy-bells will ring again throughout Europe, and when victorious nations, masters not only of their foes, but of themselves, will plan and build in justice, in tradition, and in freedom a house of many mansions where there shall be room for all.

Putting on speed, H.M.S. "Exmouth" is here seen engaged on a peacetime mission. Her loss through enemy action was announced on January 23, two days following that on which the loss of her sister ship, the "Grenville," was made known **(see pages 38-9 and 59).**

Britain Sees the Maple Leaf Again

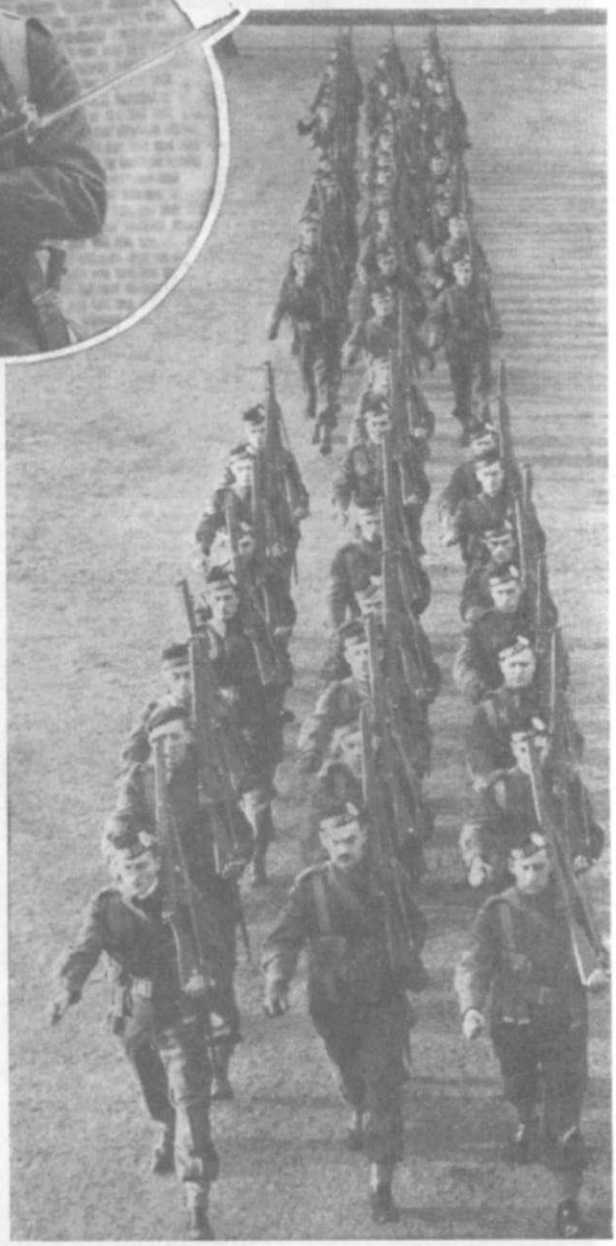
White Eagle, Chief of the Algonquin Indians, arrived in England with the second contingent of Canadians. Above, he is seen in his ceremonial dress, completed by a bow and arrows—which he does not use nowadays! Now that he is in the Canadian Army he answers to the name of Sapper P. J. Bennett, wears khaki, and carries a rifle (centre).

Photos, Topical

These two Canadians wear Yukon helmets which are worn by Canadians in the extreme north. *Photo, Associated Press*

Above, Canadian soldiers are seen somewhere in England receiving their first pay in pound notes instead of dollars. The man being paid is wearing a sweater proclaiming for all to see that he is in the Toronto Scottish.

Photo, Fox

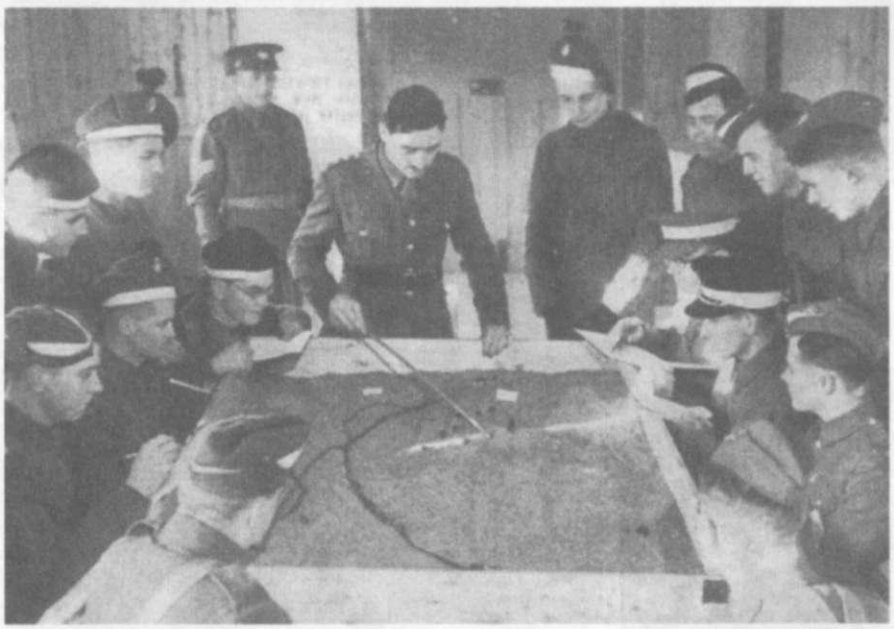


The Canadians have learned the new British formation and now march in threes. Above are Canadian Scottish on a route march in England. Left, Canadian troops are undergoing a course of machine-gun training soon after their arrival.

Photos, Fox

Officers of Tomorrow Learn How To Do It

The subalterns of the Army of today must be expert in many things, and not only expert but quick. In the event of a gas warning they must set an example to their men in donning their gas marks without fumbling. Here an officer is giving a demonstration of how it ought to be done to a number of cadets. They are being shown the exact way in which their masks should be held ready to be put on.



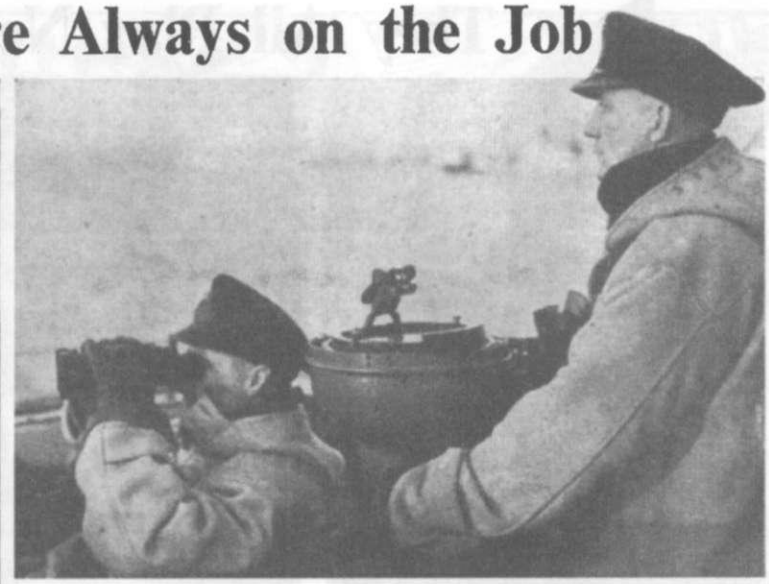
Part of the instructions given to cadets is on a sand table such as is used in many schools for instruction in physical geography. Here an officer instructing a class has laid out a road through hills on which a convoy, represented by miniature models, is passing.

THE O.C.T.U. (Officers Cadet Training Units)—the "White Band" men—founded soon after the outbreak of war, now number over 20. Their purpose is to train as officers men from the Territorial Army, the Officer Cadet Reserve, the Cadet Colleges, and men promoted from the ranks in the army at home and in the B.E.F. No commissions are now granted except to men who have served in the ranks, and the cadets at the O.C.T.U. retain their previous army rank as privates, corporals, or sergeants, with the pay of their rank, until they receive their commissions. During their training they are on probation, and have to prove their capacity for leadership. By the officers and N.C.O.s of the training unit they are treated as rankers. The period of training lasts from two to eight months, and includes everything of a military nature that a cadet at Woolwich or Sandhurst learns.

Photos, Topical Press

Quick and accurate map-reading is an essential for the young officers and they must recognize at a glance the meaning of the conventional signs and markings used on military maps. Above left, cadets are taking an examination after attending a course of lectures. Not only the practical use of gas masks is taught, but also the details of their construction and the way in which they afford protection (right).

The Dover Patrol Are Always on the Job



Two officers of a destroyer of the Dover Patrol, just leaving harbour, are on the bridge, and already a keen look-out is kept.

THE patrol of the Channel is carried on chiefly by destroyers, which face hazardous work in all weathers. After submarines, destroyers run the greatest hazards, and afford the least comfortable and most confined quarters for the ship's company. In heavy weather water and spray sweep over the decks, while at full speed the very high-powered engines in a light hull set up intense vibration. *See* also p. 300, Vol. I.

Photos, Central Press and Sport & General

In the top photograph some of the crew of a destroyer of the Dover patrol are enjoying a game of cards in the interval between watches. When the game is over they too will turn in, like the man who has already slung his hammock. Above, in the same quarters, the crew are at dinner. A Leading Seaman Torpedoman acts as carver.

Left, a seaman on a destroyer is embroidering a tablecloth to send to a lady who has knitted woollen comforts for the crew. Right, a Leading Torpedoman is wearing the earphones through which he receives orders.

They All Play New Parts in War Time

A famous French film star, Charles Boyer, above, is now a private in the French Army. David Niven, top right, has come to England from Hollywood to join up.
Photos, Wide World and Fox

Above are Cadets Guy Middleton, Frank Lawton, Nigel Patrick, and Giles Isham, well-known actors and pre-War Territorials. Centre is C. W. A. Scott, who, with T. Campbell Black, made a sensational flight to Australia in 1934. He is now an ambulance driver in London.

Brian Lawrance, who is known to all listeners-in, is seen, left, with Arthur Prince, the famous ventriloquial music-hall star. Both are now in the War Reserve Police. Above is Larry Gains, the boxer, now a sergeant instructor in physical training.
Photos, Keystone, Planet News, and Fox

Eye Witness Stories of Episodes and Adventures in the Second Great War

I Was the Last Man on the 'Grenville'

The seaman who is seen in the dramatic photograph in page 39 clinging to a porthole of the destroyer "Grenville" here tells his own story in vivid, if homely, language. Another survivor's story is added. These are taken by permission from the "Daily Express" and "Daily Telegraph."

Captain G. E. Creasy was appointed to the "Grenville" in June 1938. He led his men in singing when they were swimming for their lives in ice-cold water.

ABLE SEAMAN SIDNEY GEORGE BROMFIELD looked at the picture of the sailor, balanced like a human fly on the bow of the sinking "Grenville" (*see* page 39).

"Yes, that's me," he chuckled, "and, blimey! it wasn't half cold! What you can't see in the picture is that I've got one bare foot.

"When the sea came swishing up I reckoned I should be joining it any moment. So, to give myself a better chance, I kicked off my left sea boot. That foot got cold, so I decided that if I was going to be drowned I'd drown in comfort, with the other boot on."

This twenty-six-year-old seaman laughed as he talked of his adventure. It was only when he spoke of the death of his comrades that the grin faded.

"I saw them go," he said. "I was slithering down the side of the ship. I closed my eyes for a moment, and when I opened them I could see my mates being sucked down in the whirlpool. I was fighting for life myself, but the sight of those lads going I'll never forget.

"I had just come off watch, after being up all night and was snugly bunked down when the explosion happened. At first I thought we were dropping a few depth charges, and turned over to have another snooze.

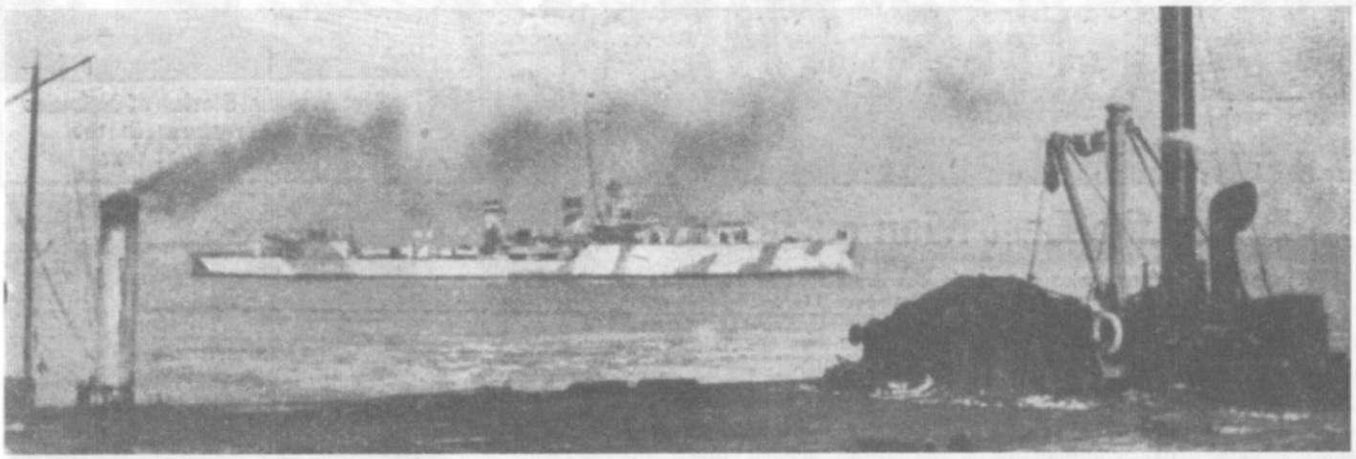
"But suddenly the ship started to list over. My mates ran towards the gangway. I sat up, rubbing the sleep out of my eyes, and decided 'The hatchway for me!' When I got on deck there was a terrific list, and I wondered what to do. You see," he explained naively, "I couldn't swim, and that made it a bit difficult. I decided I'd hold on to anything solid so long as there was anything solid to hold on to. As the ship listed, I squatted on the seat of my pants and slithered with her, trying to keep an even keel.

"But there was a sudden plunge,

These survivors of the "Grenville," after their terrible experience, give in their looks alone, the Navy's invariable reply to the question, "Are we downhearted?" They are seen at the port at which they were landed in their temporary outfit of blankets and plimsolls. At every British port there is an organization for dealing with shipwrecked sailors, which provides them not only with food and accommodation but also with enough clothing to carry on with until their kits are replaced.

Photos, "Daily Mirror" and Associated Press

I WAS THERE!



The flotilla leader "Grenville" is here seen leaving port for her last voyage, the tragic, yet heroic, end of which is told in pages 38-9 and 59-60. She is painted with the wartime camouflage which makes her almost invisible to lurking submarines. A flotilla consists, as a rule, of eight destroyers, including the leader, the commander of which holds the rank of captain. *Photo, "Daily Mirror"*

and I found myself in the water holding on to one of the porthole bars. By using these as a ladder I swung myself from porthole to porthole until I reached the top.

"While I was clinging there I saw two ships circling round trying to pick up survivors. Two lifeboats—both seemed to be overloaded—passed me.

"The whole sea beneath me was dotted with the bobbing heads of sailors swimming for their lives."

Bromfield said that when he had been balancing himself about half an hour on the porthole he was so cold that it seemed impossible to hang on any longer, and he didn't care if he didn't. He went on:

"But when I thought of those poor devils swimming about I told myself, 'You've got a cushy billet, you have, —what are you grumbling about?'

"Then came the most heartening sound I've ever heard. It was the voice of our captain, Captain Creasy, in the water himself, cheering his men.

"And you bet it cheered me. Somehow it set my blood tingling, and gave me the strength to hang on until the rescue boat arrived about a quarter of an hour later. I'd been stranded on that bow for only an hour, but it seemed more like a month.

"After we had been rescued they took us into the officers' mess, and while our clothes were being dried gave us lashings of rum to keep out the cold, and cigarettes. Then we had hot soup and a good sleep before returning to depot.

"I shall be back at sea after fourteen days' leave. But there's one thing I should like to ask, and that is that they put better grips, or footholds, on the Navy portholes."

As they swam in the North Sea after the sinking of their ship survivors from the "Grenville" sang popular songs, led by their commander, Captain Creasy. A vivid description of the scene was given by Able Seaman J. Walton, of Rutland-avenue, Fleetwood.

"I was buying some chocolate in the canteen when there was a terrific explosion," he said. "I tried to reach a lifeboat, but it was impossible, and I followed the rest into the icy seas. The bridge and superstructure collapsed and many men were trapped underneath.

"I was lucky to grab hold of a spar. After being tossed about for two hours I was rescued by another warship. One of my shipmates had to release his grip. In a few minutes more he would have been saved. Many men were clinging to all kinds of wreckage, though the survivors were becoming fewer as each minute passed. One man was holding on to part of the foremast with one hand while in the other he had a piece of toast which he was eating.

"Capt. Creasy, while in the water, shouted messages to cheer us up. We responded with an effort to sing 'Beer Barrel Polka,' but the water went into my mouth every time I opened it."

I Carried Gun-cotton at Waltham Abbey

Three explosions which occurred at the Royal Gunpowder Factory, Waltham Abbey, Essex, on January 18, caused five deaths and a number of injuries. Eyewitness accounts of the scene are here reprinted from The "Daily Telegraph."

A graphic description was given by an employee who was carrying a bag of gun-cotton in a shed next to the one in which the first explosion occurred.

"The blast threw me about 20 yards and I landed on my back with the bag still in my arms," he said. "Had it struck the ground I should have been blown to pieces.

"I picked myself up, and with several workmen rushed out of the shed. As we got outside a second explosion occurred. We did not know which way to run, so we threw ourselves on the ground.

"There was a third explosion and flames reached a height of several hundred feet. There were clouds of smoke, and debris was flying in all directions.

"Had the nitro-glycerin in sheds nearby gone up there would have been nothing left of the district.

"Firemen arrived in a few minutes and played their hoses on the flames. We searched the wreckage as soon as possible and found two bodies. They were so badly shattered that recognition was impossible. Luckily we found their identity disks. No trace has been found of three other men.

"All the afternoon we have been moving nitro-glycerin to get it clear of the area. We were warned to expect further explosions at any moment."

"Of No. 5 shed," said a man who had been in the vicinity, "not a piece of wood more than an inch square was left. The two adjoining sheds were also shattered, and the canteen and changing rooms.

"Few men were at work when it happened, for a half-hour break, beginning at 10.30, was in operation. I was working about 30 yards away, and a piece of concrete weighing about a ton shot over my head, and landed a quarter of a mile away. Two small iron bridges over the river were demolished."

The Rev. A. V. G. Cleall, vicar of Waltham Abbey, about a mile from the factory, was in the eleventh-century building at the time.

"Morning service was just over and I was in the vestry," he said. "I went into the building, hearing the noise of falling glass. The glass was still falling as I looked up and saw that the five clerestory windows were completely blown out. The lead casing had also been wrenched away. Fortunately there was no damage to the Norman arches.

"Luckily, the large stained-glass windows, including the Burne-Jones windows at the east end, had been boarded as a protection against air raids."

I WAS THERE!

Waltham Abbey is Shaken by the Blast of War

Pathetic scenes were witnessed at Waltham Abbey when relations of the workers waited at the factory gates for news. Left, a mother, seeking for news of her son, holds her grandchild in her arms. Above, one of the injured is being taken to hospital.

Above are damaged windows in Waltham Abbey (*see* story in page 60). Right, a tarpaulin is being spread over a roof that was partially blown away. Below is one of many greenhouses in neighbouring nurseries that were practically wrecked.
Photos, "News Chronicle," Fox and Keystone

THREE terrific explosions occurred at the Royal Gunpowder Factory at Waltham Abbey, Essex, shortly before 11 o'clock on January 18. Five men were killed and 30 injured, while there was extensive damage to property. Buildings as much as 24 miles away were shaken by the explosions, and over a wide area windows were shattered, and in some cases roofs were partially blown off. In the neighbourhood there are numerous nursery market-gardens, and many of these suffered severely, the floors of the greenhouses being littered with broken glass. In Waltham Abbey, an historic church dating back to the days of King Harold, some windows were broken, but fortunately those in stained glass, including one designed by Burne-Jones, had been boarded up as a protection against air raids and so escaped injury.

I WAS THERE!

How We Rescued a German Airman

After floating for three hours supported by his life-jacket, a young German flying officer was picked up in the North Sea on January 13. His rescue was due to the chivalrous conduct of the pilot of the British fighter which had shot down the German 'plane, who wirelessed its position to his base.

THE pilot of the British fighter which dispatched the Heinkel saw the crew launch a rubber dinghy when the bomber crashed into the sea. He immediately wirelessed the position to his base. The information was passed on to the Coastal Command and instructions to proceed to the spot were sent to the captain of a powerful R.A.F. launch in a small harbour on the east coast of Scotland. At the same time a Coastal Command aircraft was sent out from a nearby aerodrome to help in the search.

The launch, driven by three 500 h.p. aero-engines, reached the position in an hour, and the commander, a young flying officer, began a systematic search.

"It was very difficult to spot small things on the sea," he said, "because the surface was broken by gulls landing and flying off and by diving birds. We made a wide rectangular sweep of 10 miles in the direction in which the tide was running and then cast about on new tacks. For an hour and three-quarters we searched the area, but visibility was not good. Though we saw the Coastal Command aeroplane which was assisting, we could not keep it long in view at any time because of the thick haze.

"Suddenly I saw a black speck about three-quarters of a mile to port. I sent the wheel hard over and in a few seconds we saw it was a man. He was lying on his back supported by his pneumatic life jacket. He was threshing the water with his arms trying to do the back stroke. There was no trace of the dinghy which the German crew launched when their aircraft was brought down.

"The German pilot didn't see us until we were nearly alongside him. He told us afterwards he had been trying to swim to England—20 miles away—guiding himself by the sun. He was in full flying kit and the only way to get him on board was for one of our crew to go into the water and fasten ropes round him so that he could be hauled in by the derrick.

"My sergeant volunteered immediately and threw off his boots. He was over the side in a moment, and fastened up the German, whom we soon had aboard with the derrick. Then we hauled in the sergeant. Even after such a short dip the sergeant was shivering with cold. The German officer was near extreme exhaustion. We soon had him tucked up in my bunk below deck. One of the crew gave him his trousers and we fitted him out with a sweater and thick woollen socks. He was most grateful for six cups of hot tea which he swallowed one after the other.

"He told us that his observer, who had been wounded in the fight, had also been in the water. So we went on searching for him for another hour, but without success. Then we started back for home with our prisoner fast asleep. We wirelessed for an ambulance which was waiting to take him into hospital."

A recent addition to the fleet of motor boats of the R.A.F. is the fast launch seen above. She is designed as a rescue ship, and in her small hull has sick berth accommodation for twenty injured persons.

Photo, Central Press

Though Neutral, the Nazis Torpedoed Us

Despite protests by her captain that he was not carrying contraband, the 8,000-ton Dutch freighter "Arendskerk" was sunk by a German U-boat in the Bay of Biscay on January 15. The captain's story is here reproduced by permission of Reuters.

THE story of the sinking of the "Arendskerk" was told by the ship's captain when he was landed at Lisbon with his crew by a Dutch steamer.

"We were bound for Capetown and Durban with a general cargo," he said.

"We had just passed Ushant when we saw far ahead a small spot on the horizon. Suddenly a shower of bullets dropped round the ship; the small spot was a submarine.

"Firing continually while it was getting nearer, the submarine ordered me to stop. I obeyed, but the shooting continued.

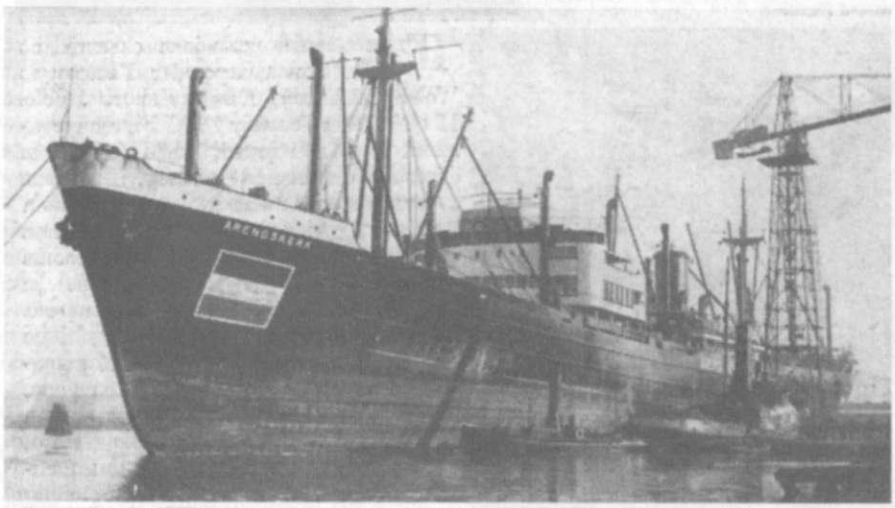
"My first officer took the ship's papers to the Germans, and the captain said he was very sorry but he would have to sink the ship as the cargo was contraband because its destination, South Africa, was an enemy country.

"He said he considered it contraband because it was destined for the enemy.

"My boat was carrying only a general cargo; there was no contraband.

"The German captain also declared that it was really a pity to sink such a good ship—it was only a year old—but he had to do his duty.

"The submarine towed the first officer's boat back and gave the crew half an hour to leave. Later we saw the whole deck, masts and cargo of our ship blown up."



The Dutch motor ship, whose tragic story is told by the captain in this page, is here seen lying in port. She belonged to the United Dutch Shipping Company and had no passengers, but was a freighter, pure and simple, carrying a mixed cargo to South Africa.

Photo, Central Press

Women of the Empire Take the 'Joystick'

Miss Pauline Gower, daughter of Sir Robert Gower, M.P., seen above left just before taking off, has been appointed to take charge of the women of the Air Transport Auxiliary Service. Above, some of the pilots are going on duty.

THE Women's Section of the Air Transport Auxiliary Service was formed in December 1939. It then consisted of the First Officer, Miss Pauline Gower, and eight second officers. Their duty is to fly light aircraft of the training type from factories to aerodrome, thus relieving pilots of the R.A.F. for more arduous work. The women are all qualified pilots with practical experience in commercial flying, while several of them have been instructors and have trained men pilots up to the "B" standard.

Some of the women pilots are here seen studying a map before starting a flight. They are, left to right, Mrs. Winifred Crossley, Mrs. Marion Wilberforce, Miss Mona Friedlander (seen also in page 599, Vol. I), the Hon. Mrs. Fairweather, behind chair, and Miss Joan Hughes.

Australian girls, like English girls, are anxious to "do their bit" for the Empire in the air. Above, future airwomen of the Commonwealth, wearing overalls, are being given a lesson in propeller swinging at an Australian girls' Aero Club. Right, Miss Joan Hughes, the youngest of the women pilots, is wearing the uniform of the Air Transport Auxiliary Service.

Photos, Barratts, Photopress, Topical and Associated Press

OUR DIARY OF THE WAR

Thursday, January 18, 1940

Western Front reported mutual artillery action in region west of the Saar.

Russians retreated nearly 30 miles on Salla front, reaching vicinity of Maerkaejaervi.

Finnish communiqué announced that **eleven Soviet bombers** had been **brought down.**

Dutch royal decree proclaimed state of siege in several coastal areas.

Berlin announced the rescue of four officers and 26 men of the three submarines lost in Heligoland Bight.

Crew of British steamer "Cairnross," mined off West Coast of England on Jan. 17, were landed.

Eight of crew of Norwegian steamer "Enid," shelled and torpedoed by U-boat on Jan. 17, reached port.

Swedish steamers "Flandria" and "Foxen" sunk by mines off Ymuiden.

Reported that Norwegian steamer "Fagerheim" had been sunk in Bay of Biscay on Jan. 14; and that Greek steamer "Asteria" had been mined in North Sea on Jan. 17.

Danish steamer "Canadian Reefer" torpedoed off north-west Spain.

German steamer "August Thyssen," sailing without pilot, sunk by Swedish mine off Stockholm.

Explosion in Royal Gunpowder Factory, Waltham Abbey, with loss of five lives.

Friday, January 19

Soviet bombers raided outskirts of Helsinki.

Severe fighting in "waist-line" area of Finland, where Russians were still in retreat.

Russian division north of Lake Ladoga, under command of General Grigori Stern, also began to retire.

Russian attacks on Finnish positions at Taipale, south of Lake Ladoga, repulsed.

Finnish communiqué reported that **Swedish volunteer pilots** had **bombed Soviet troops.**

R.A.F. fighter attacked Heinkel raider off Aberdeen.

Reconnaissance flights carried out over north-west Germany by R.A.F.

Swedish steamer "Pajala" sunk by U-boat.

Reported that entire crew of British tanker "Inverdargle" were lost when she sank after explosion on Jan. 16 off South-West Coast.

Intense cold still being experienced over whole of Europe. In Italy 20 deg. of frost Fahrenheit recorded, and in Finland 81 deg.

Denmark expressed, for first time, intention of preserving neutrality by force of arms if necessary.

Saturday, January 20

Heavy air raids over towns in South Finland, especially Turku, where 75 incendiary and 150 explosive bombs were dropped. There were also machine-gun attacks from the air. Much material damage was done.

Continued **fierce fighting in Salla sector.** Russians attempting to make a stand at Maekaejaervi. **One Soviet division** reported to have been **cut off.**

R.A.F. aircraft dropped bombs when attacked by anti-aircraft guns from four German patrol vessels in North Sea. No damage or casualties suffered by our aircraft.

British tanker "Caroni River" mined off West Coast.

Estonian steamer "Nautic" sunk off Shetlands.

Air Ministry released a number of photographs taken by R.A.F. during flights over Germany.

Foreign Ministers of Yugoslavia and Rumania met at Versecz, on mutual frontier, to confer.

Sunday, January 21

Admiralty announced that **H.M. destroyer "Grenville"** had been **sunk** in North Sea. Eight men were killed and 73 were missing and presumed dead.

Finnish aircraft, piloted by foreign volunteers, **bombed fortifications of Kronstadt,** island base of Soviet fleet near Leningrad. They also raided Russian bases in Estonia, including air base south of Tallinn.

British steamer "Ferryhill" mined off North-East Coast.

British steamer "Protesilaus" struck a mine off West Coast.

Two neutral vessels, Danish "Tekla" and Norwegian "Miranda," sunk by enemy action.

Announced that since the beginning of the War Norway had lost 28 ships through German mines and warships.

Official Dutch communiqué stated that, owing to the improved situation, army leave would soon be restored.

Eight French war correspondents attached to B.E.F. arrived in England as guests of Ministry of Information, for a tour arranged by War Office, Admiralty and Air Ministry.

Monday, January 22

In Salla sector, Russian army still fighting stubborn rearguard action.

New Russian offensive was started **round Lake Ladoga.**

Russian attacks in Karelian Isthmus were repulsed.

Soviet aircraft made bombing raids over Northern Finland and were met by Swedish volunteers in new fighter aeroplanes.

Admiralty announced that **H.M. trawler "Valdora"** was overdue and must be considered **lost.**

Greek steamer "Ekatontarchos Dracoulis" reported sunk by U-boat south of Portuguese coast.

Admiralty stated that two officers and 25 ratings from H.M.S. "Rawalpindi" are prisoners of war in Germany.

Helsinki announced that new Foreign Legion, including Estonian, Lithuanian, British, French, German and Italian volunteers, had been formed and would shortly go to the front.

Tuesday, Jan. 23

Helsinki reported that strong **Russian offensive at Taipale** had been **beaten back** after six hours' fighting.

Attempt to outflank Mannerheim Line by encircling movement from north of Lake Ladoga was also repulsed by Finns, with heavy loss to the enemy,

On Salla front small isolated force of Russian troops were still holding out at Maerkaejaervi, supplies being dropped from Soviet aeroplanes.

Admiralty announced that **H.M. destroyer "Exmouth"** had been **sunk** by mine or torpedo, and that there were no survivors.

Two steamers, British "Baltanglia" and Norwegian "Pluto," sunk by mine off North-East Coast.

In South African Parliament, Gen. Hertzog delivered tirade in defence of Nazis, and was at once denounced in vigorous speech by Gen. Smuts.

M. Paderewski elected Speaker of Polish National Council, first meeting of which was held in Paris instead of at Anvers. All Polish parties were represented.

Reported that Japan had made formal protest against action of British warship in stopping Japanese liner "Asama Maru" on Jan. 21 and removing 21 German passengers of military age.

In view of mortality rate on British roads (1,200 killed during December) Government decided to reduce speed limit in built-up areas during darkness from 30 to 20 miles an hour.

Wednesday, January 24

Fighting continued north-east of Lake Ladoga, where Russian onslaught was very strong, and in the Karelian Isthmus. Finns withstood all attacks.

Fierce encounters on Salla front round Maerkaejaervi, where Russians are entrenched.

Soviet air raiders bombed four Finnish hospitals, 19 persons being killed.

Two German aircraft flew over Shetlands and dropped four bombs, but did no damage.

Two British vessels, "Newhaven" and "Parkhill," reported lost with all hands.

Announced by Finnish authorities in London that two aeroplanes laden with medical supplies left London for Helsinki.

Unconfirmed report that 30 British aircraft had arrived in Helsinki.

The King reviewed Canadian troops training at Aldershot.

The Vulture of the Sea

From the cartoon by Illingworth. *By permission of the Proprietors of "Punch"*